GEM Reso

LA RECHERCHE COLLABORATIVE AU SERVICE DES PATIENTS

LIVRET 2022

OMCCI
OBSERVATOIRE DES MALADIES CUTANÉES CHRONIQUES INFLAMMATOIRES

EDITO

Chers amis,

Notre réunion du 1er décembre réunira 2 émanations de RESO, toutes 2 dédiées à la recherche clinique, le GEM (groupe d'études multicentriques) et l'OMCCI (observatoire des maladies cutanées chroniques inflammatoires) avec son registre emblématique.
Cette fusion symbolise encore une fois notre dynamisme croissant depuis 11 ans d'activité de notre GEM Reso ! En témoignent de nombreuses communications en congrès, et plusieurs articles publiés dans des revues internationales.

Avec cette particularité constamment vérifiée et unique qui est notre marque de fabrique : un travail participatif ! Nous nous réunissons d'ailleurs 2 fois par an pour discuter de nos travaux futurs ; collaboratifs, et partageons avec les membres de RESO nos articles pour que chacun puisse commenter et enrichir ainsi la discussion. Il y a peu d'exemples actuellement d'un tel fonctionnement au sein de la dermatologie française...

Au cours de cette réunion, nous accueillerons nos membres qui souhaitent rejoindre le GEM Reso et partager notre enthousiasme pour cette médecine collaborative. Nous leur présenterons les résultats des travaux réalisés par le GEM en 2022, les perspectives 2023 que vous trouverez dans ce livret ainsi que les principales données déjà analysées pour le registre OMCCI .
Notre registre progresse toujours sans faiblir après 18 mois, avec plus de 2200 malades déjà inclus. Continuons à mener ensemble cette aventure scientifique unique avec rigueur mais toujours dans un esprit confraternel et convivial .

A très bientôt, et avançons tous ensemble !

Dr Pierre-André Becherel

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Drs Anne-Cécile Ezanno, Philippe Guillem

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Drs Anne-Claire Fougerousse,
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Nombre de centres participants : 22

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Dr Antoine Badaoui
Etude collaborative avec le GUS

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- EFFICACITÉ DE L'INFLIXIMAB EN CAS D'ÉCHEC À UN ANTI IL17


Investigateurs principaux :
Drs Anne-Claire Fougerousse,
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Nombre de patients inclus : 12
Nombre de centres participants : 2

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- ENQUETE DE PRATIQUES




Investigateurs principaux :
Drs Pierre André Bécherel,
Anne-Claire Fougerousse,
François Maccari,
Ines Zaraa

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Nombre de patients inclus : 809
Nombre de centres participants : 28

Communications

Journées Dermatologiques de Paris 2019

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ETUDES ABOUTIES

MALADIE DE VERNEUIL

- ENQUÊTE DE PRATIQUES SUR L'ANTIBIOTHÉRAPIE DANS LA MALADIE DE VERNEUIL

Investigateurs principaux :
Drs Anne-Claire Fougerousse, Ziad Reguiai

Objectif : Décrire les modalités de traitement par antibiotiques au cours de la maladie de Verneuil selon le stade de Hurley

108 réponses au questionnaire

Communications

EHSF 2021

Antibiotic use in Hidradenitis suppurativa: a practice survey
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Antibiothérapie dans l'hidradénite suppurée: enquête de pratiques.
Anne-Claire Fougerousse, Ziad Reguiai et Pour le GEM ResoVerneuil

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Antibiotic Treatment for Hidradenitis Suppurativa in France : A Practice Survey
Anne-Claire Fougerousse, Ziad Reguiai et Pour le GEM ResoVerneuil

Clinical, Cosmetic and Investigational Dermatology

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SHORT REPORT

Antibiotic Treatment for Hidradenitis Suppurativa in France: A Practice Survey

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On behalf of the GEM ResoVerneuil

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Purpose: Antibiotics are used for hidradenitis suppurativa's management with limited evidence. Choice of antibiotics is based on small randomized controlled trial or open case-series.

Patients and Methods: We performed a practice survey in Resoverneuil, a French network of physicians treating hidradenitis suppurativa, to identify the antibiotic strategy according to the Hurley stage. Online questionnaire was sent to all members of ResoVerneuil between January and February 2021.

Results: In total, 108 physicians answered the survey: 37.6% were hospital based, 34.6% had a private practice and 27.8% a mixed practice, and 13.8% had a dedicated consultation for hidradenitis suppurativa. Sixty-three physicians reported seeing fewer than 5 patients with hidradenitis suppurativa per month; 29 seeing 5 to 15 patients per month; and 9 seeing more than 15 patients per month. More than 90% declared prescribing antibiotics for flares in Hurley 1 and 2 stages, and 83% in Hurley 3 stages, mostly amoxicillin-clavulanic acid and pristinamycin. Of these physicians, 29.7% declared prescribing a background antibiotic therapy for Hurley 1 stage with less than 4 flares per year, and more than 75% for Hurley 1 stage with more than 4 flares per year, Hurley 2 and Hurley 3 stages; mostly cyclins, combination of rifampicin and clindamycin and sulfamethoxazole-trimethoprim.

Conclusion: This survey underlines the heterogeneity in antibiotic prescription for hidradenitis suppurativa in France, particularly as background therapy.

Keywords: hidradenitis suppurativa, antibiotics, practice survey

Introduction

Although hidradenitis suppurativa is not primarily an infectious disease, antibiotics are widely used to treat this pathology based on limited evidence. The choice of type and length of antibiotics regimen is based on small randomized controlled trials for topical clindamycin[1] and tetracyclin[2] and on open case-series for other antibiotics as combinations of rifampicin-clindamycin,[3–9] clindamycin as monotherapy,[10] ofloxacin-clindamycin[11] or rifampicin-moxifloxacin-metronidazole,[12] dapsone.[13] French guidelines for the management of hidradenitis suppurativa were published in 2019, comprising recommandations concerning antibiotherapy use.[14] For Hurley stage I or II hidradenitis suppurativa, use of amoxicillin/clavulanic acid or pristinamycin for 7 days was recommended; for preventive treatment or post acute care, cotrimoxazole or cyclins. For Hurley stage II or III hidradenitis suppurativa, use of ceftriaxone/metronidazole or levofloxacin/clindamycin for 15–21 days was recommended, then cotrimoxazole or cyclins. We sought to describe the practice regarding antibiotic prescriptions for hidradenitis suppurativa in France, 18 months after the first communication of the French guidelines.

Patients and Methods

We performed a practice survey in the French physicians network "ResoVerneuil" to identify the antibiotic strategy used in daily life by these physicians for the treatment of hidradenitis suppurativa according to the Hurley stage. ResoVerneuil comprises 278

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members (dermatologists, surgeons, gastroenterologists [excluding students in medicine]), objectives of which are to improve the knowledge of healthcare professionals and patients about hidradenitis suppurativa, to improve the patient's journey and to promote research about hidradenitis suppurativa. A questionnaire was sent by e-mail (with two reminders) to all members of ResoVerneuil between 4th of January and 14th of February 2021 (see Figure 1).

The questionnaire collected the gender of the dermatologist, the mode of practice (hospital, private or mixed) and the prescription of antibiotics for hidradenitis suppurativa. For each Hurley stage, the physician was asked

Are you ? ***a man a woman***

How old are you ? ***years***

What is your mode of practice ? ***Hospital based /Private /Both***

Have you a consultation dedicated to hidradenitis suppurativa ? ***yes/no***

How many patients with hidradenitis suppurativa are you seeing each month ? ***<5/ 5 to 15/ >15***

Concerning Hurley 1 hidradenitis suppurativa with less than 4 flares per year, Hurley 1 hidradenitis suppurativa with more than 4 flares per year, Hurley 2 and 3 hidradenitis suppurativa, please answer the following questions:

- **Do you prescribe antibiotics for flares ?** ***yes/no***
- **If yes, which antibiotic are you using ? (multiple answers possible)**
  - **amoxicillin-clavulanic acid**
  - **pristinamycin**
  - **other**
- **Do you prescribe background antibiotics?** ***yes/no***
- **If yes, which antibiotic are you using ? (multiple answers possible)**
  - **Topical clindamycin**
  - **Doxycyclin**
  - **Minocyclin**
  - **Limecyclin**
  - **Cotrimoxazole**
  - **Rifampicin-clindamycin**
  - **Ofloxacin – clindamycin**
  - **Levofloxacin- clindamycin**
  - **Pristinamycin –metronidazole**
  - **Ceftriaxone- metronidazole**
  - **Rifampicin – moxifloxacin – metronidazole**
  - **Ertapenem**
  - **Azithromycin**
  - **Other, please precise**
- **If yes, for how long ? < 3 months/ 3 to 6 months/ > 6 months**

Figure 1 Questionnaire.

whether they use antibiotics to treat hidradenitis suppurativa's flares and/or as background therapy and, when appropriate, which antibiotic (multiple answers were possible for each Hurley stage) and, for the background therapy, the length of the prescription. For this type of study, French regulations do not require submission to an ethics committee, as this study does not enter the field of the deliberation n°2018-154 of the 3rd of May 2018 (JORF n°0160 of the 13th of July 2018).

Results

One-hundred-eight physicians answered the survey, with 101 analyzable answers. Among those, 75.9% were women, 37.6% were hospital based, 34.6% had a private practice and 27.8% a mixed practice (hospital and private), and 13.8% had a dedicated consultation for hidradenitis suppurativa. Sixty-three physicians reported seeing fewer than 5 patients with hidradenitis suppurativa per month, 29 seeing 5 to 15 patients per month and 9 seeing more than 15 patients per month.

Antibiotics prescription according to Hurley stage is presented in Table 1 for flares and in Table 2 for background therapy.

Discussion

A vast majority of physicians prescribe antibiotics for flares whatever the Hurley stage is, mostly amoxicillin-clavulanic acid and pristinamycin, in accordance with the French recommendations.[14] Background antibiotic therapy is prescribed by about 80% of physicians for patients with hidradenitis suppurativa Hurley 2 and 3 and for those with Hurley 1 with more than 4 flares per year. Thirty percent of physicians, however, prescribe background antibiotic therapy for patients with Hurley 1 hidradenitis suppurativa with less than 4 flares per year, which is not proposed in French recommendations. We can hypothesize that this situation concerns Hurley 1 patients experiencing few but severe flares, as abscesses requiring surgical management. Background antibiotics used are mostly cyclins, cotrimoxazole and combination of ceftriaxone and metronidazole (for Hurley 3 stage). Several other antibiotics are used as combinations of rifampicin and clindamycin (as proposed in European recommendations for the treatment of hidradenitis suppurativa)[15] and clindamycin and quinolones, azithromycin, etc. The combination of clindamycin and levofloxacin proposed in French recommendations as attack treatment in Hurley 2 and 3 stages is very little used in practice. Length of combination of antibiotics exceeds 3 months in

Table 1 Antibiotics for Flares

Antibiotics for Flares	HS Hurley 1, <4 Flares/Year	HS Hurley 1, >4 Flares/Year	HS Hurley 2	HS Hurley 3
Yes (%)	90	92.9	90	83.3
Type of antibiotic used (%)	Amoxicillin-clavulanic acid 85.7 Pristinamycin 49.5 Doxycyclin 2.2 Rifampicin-clindamycin 2.2 Clindamycin 1.1 Pristinamycin-metronidazole 1.1 Azithromycin 1.1	Amoxicillin-clavulanic acid 85.9 Pristinamycin 44.6 Doxycyclin 5.4 Rifampicin-clindamycin 2.2 Clindamycin 1.1 Pristinamycin-metronidazole 1.1 Azithromycin 1.1 Metronidazole 1.1	Amoxicillin-clavulanic acid 79.3 Pristinamycin 41.5 Ceftriaxone-metronidazole 3.7 Rifampicin-clindamycin 2.4 Doxycyclin 1.2 Ceftriaxone 1.2 Clindamycin-ofloxacine1.2 Clindamycin – moxifloxacin 1.0.2	Amoxicillin-clavulanic acid 72 Pristinamycin 41.3 Ceftriaxone-metronidazole 6.7 Rifampicin-clindamycin 4 Clindamycin-ofloxacin 2.7 Ertapenem 2.7 Clindamycin –moxifloxacin 1.3 Ciprofloxacin 1.3 Metronidazole 1.3 Clindamycin-moxifloxacin-metronidazole 1.3 Tazocilline 1.3 Ceftriaxone 1.3

Abbreviation: HS, hidradenitis suppurativa.

Table 2 Background Antibiotic Therapy

Background Antibiotic Therapy	HS Hurley 1, <4 Flares/Year	HS Hurley 1, >4 Flares/ Year	HS Hurley 2	HS Hurley 3
Yes (%)	29.7	75.6	86.8	80
Type of antibiotic used (%)	Cyclins 100 Cotrimoxazole 6.7 Rifampicin-clindamycin 6.7 Topical clindamycin 3.3	Cyclins 100 Cotrimoxazole 20 Rifampicin-clindamycin 9.3 Topical clindamycin 5.3 Clindamycin-ofloxacin 2.7 Pristinamycin-métronidazole 2.7 Ceftriaxone-metronidazole 2.7 Clindamycin-levofloxacin 1.3 Rifampicin- moxifloxacin-metronidazole 1.3 Azithromycin 1.3	Cyclins 83.5 Rifampicin-clindamycin 27.8 Cotrimoxazole 26.6 Clindamycin-ofloxacin 10.1 Topical clindamycin 8.8 Clindamycin-levofloxacin 6.3 Rifampicin- moxifloxacin-metronidazole 6.3 Azithromycin 6.3 Pristinamycin-métronidazole 3.8 Ceftriaxone-metronidazole 2.5	Cyclins 68 Rifampicin-clindamycin 31.4 Cotrimoxazole 31.9 Ceftriaxone-metronidazole 18 Clindamycin-ofloxacin 13.8 Rifampicin- moxifloxacin-metronidazole 13.8 Clindamycin-levofloxacin 12.5 Topical clindamycin 5.5 Azithromycin 4.2 Ertapenem 4.2 Pristinamycin-métronidazole 2.8
Length of prescription (%)	< 3 months 0 3–6 months 76.7 >6 months 23.3	< 3 months 5.3 3–6 months 73.3 >6 months 21.4	< 3 months 7.6 3–6 months 69.6 >6 months 22.8	< 3 months 13.9 3–6 months 56.9 >6 months 29.2

Abbreviation: HS, hidradenitis suppurativa.

80% of cases, contrary to the recommendations. This can been explained by the absence of therapeutic alternatives, as adalimumab was not reimbursed for hidradenitis suppurativa at this time in France.

Physicians seeing more than 15 patients with hidradenitis suppurativa per month were more likely to respect French recommendations, probably being more up to date about hidradenitis suppurativa's management. There was no difference in antibiotic pattern prescription according to the existence of a dedicated consultation for hidradenitis suppurativa.

Limits of this study are the absence of a question about the impact of the French recommendations on the habits of antibiotic prescription, and the impossibility to determinate exactly the length of each type of background antibiotic when the physicians declared prescribing more than one type.

Conclusion

This survey underlines the heterogeneity in antibiotic prescription for hidradenitis suppurativa in France, particularly as background therapy, and the high rate of long prescription of antibiotic combinations. As long-term use of antibiotic combinations, in particular fluoroquinolones and rifampicin, can lead to serious adverse events and development of antibioresistance, their use should be limited. Cyclins or cotrimoxazole appear to be a safer long-term option. Since this survey was taken, adalimumab is now reimbursed for hidradenitis suppurativa, which may lead to a modification of antibiotic use. However, studies with a better level of evidence are needed in order to improve the use of antibiotics in hidradenitis suppurativa and to clarify their place in the management of hidradenitis suppurativa (monotherapy, combination with biologics or surgery, etc.).

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Disclosure

Dr Philippe Guillem reports receiving personal fees from Abbvie, Novartis, UCB Pharma and Concatec, outside the submitted work. Dr Ziad Reguiai reports being an investigator in clinical trials and a consulting (board) speaker for Abbvie, Amgen, Leo Pharma, Pfizer, Janssen, Almirall, UCB and Novartis; and a speaker for Medac, an investigator in clinical trial consulting (board) for Celltrion and a consulting (board) speaker for Lilly, outside the submitted work. The authors have no other conflicts of interest to declare.

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- EPIVER

Investigateur principal :
Pr Jean-Luc Perrot

Objectif : Permettre une meilleure connaissance des malades français atteint d'une maladie de Verneuil en précisant leurs antécédents inflammatoires et cardiovasculaires personnels et familiaux, leurs expositions aux toxiques, leur profil démographique et phénotypique, l'étude de leur qualité de vie, le ressenti de la douleur

Communications

Journées dermatologiques de Paris 2017

Données démographiques et biométriques de 882 sujets atteints de maladie de Verneuil : EpiVer étude multicentrique française ville-hôpital

ETUDE TERMINEE

Nombre de patients inclus : 1428

S Allal, P Guillem, AC Fougerousse, N Beneton, F Maccari, B Labeille, E Tisserand, F Vuering, S Vergote-Pelamopurgues, E Cinotti, JL Perrot, ResoVerneuil

Ressenti des patients atteints de maladie de Verneuil à propos de 882 sujets EpiVer étude multicentrique française ville-hôpital

S Allal, P Guillem, AC Fougerousse, N Beneton, F Maccari, C Girard, I Kupfer, V beraud, A Brams, T Bonnefoy, E Cinotti, JL Perrot, ResoVerneuil

Descriptif des sites atteints par la maladie de Verneuil à propos de 882 sujets sujets EpiVer étude multicentrique française ville-hôpital.

JL Perrot, P Zuckervar, M Salavert, J Parier, JL Michel, JP Barrachin, P Guillem, E Cinotti, B Labeille, ResoVerneuil

Addictions au tabac et ou au cannabis et maladie de Verneuil EpiVer étude multicentrique française ville-hôpital

S Allal, P Guillem, AC Fougerousse, C Girard, C Fite, J Gand-Gavanou, N Quiles, E Cinotti, JL Perrot, ResoVerneuil

Antécédents personnels et familiaux de 882 sujets atteints de maladie de Verneuil étude Epiver

P Guillem, S Allal, AC Fougerousse, N Beneton, F Maccari, B Labeille, E Tisserand, F Vuering, S Vergote-Pelamourgues, E Cinotti, JL Perrot, ResoVerneuil

Journées dermatologiques de Paris 2018

Influence de l'ancienneté de la maladie de Verneuil sur la qualité de vie et la douleur à propos de 1428 sujets : étude Epiver

AC Fougerousse, P Guillem, S Allal, F Maccari, N Beneton, R Binois, E Cinotti, F Cambazard, JL Perrot, ResoVerneuil

Tabagisme et sévérité de la maladie de Verneuil : à propos de 1428 sujets : étude Epiver

E Ravni, F Cambazard, AC Biron, C Couzan, E Couty, JL Perrot, ResoVerneuil

Modalités de prise en charge thérapeutique de 1428 sujets atteints de maladie de Verneuil : étude Epiver study

Z Reguiai, C Jacobzone, E Tisserand, E Esteve, A Nassif, A Duval Modeste, P Bravard, T Boyé, N Sultan, E Cinotti, JL Perrot, ResoVerneuil

EHSF 2019 Wroclaw

Influence of the duration of Hidradenitis Suppurativa on the quality of life and pain in 1428 subjects: EpiVer study

AC Fougerousse, S Allal, G Tonini, Ph Guillem, F Maccari, N Beneton, R Binois, C Fite, E Cinotti, P Rubegni, JL Perrot

Is severity of Hidradenitis Suppurativa related to hypertension and angina pectoris ? EpiVer study on 1428 subjects

AC Fougerousse, S Allal, G Tonini, Ph Guillem, F Maccari, N Beneton, R Binois, C Fite, E Cinotti, P Rubegni, JL Perrot

Demographic and biometric data of 1428 patients with Hidradenitis suppurativa: EpiVer French multicenter study

AC Fougerousse, S Allal, G Tonini, Ph Guillem, F Maccari, N Beneton, R Binois, C Fite, E Cinotti, P Rubegni, JL Perrot

Personal and family history of 1428 subjects with Hidradenitis Suppurativa: EpiVer study

Z Reguiai, C Jacobzone, E Tisserand, AB Duval Modeste, P Bravard, T Boyé, N Sultan Bichat, A Nassif, E Cinotti, P Rubegni, JL Perrot

Therapeutic management of 1428 subjects suffering from Hidradenitis Suppurativa: EpiVer study

Z Reguiai, C Jacobzone, E Tisserand, AB Duval Modeste, P Bravard, T Boyé, N Sultan Bichat, A Nassif, E Cinotti, P Rubegni, JL Perrot

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ORIGINAL RESEARCH

How to Define Mild to Severe Hidradenitis Suppurativa? A Simple New Tool Based on Latent Class Analysis of EPIVER Data Study

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On behalf of the ResoVerneuil group

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Purpose: Hidradenitis suppurativa (HS) is an inflammatory skin disease characterized by recurrent or chronic painful and suppurating lesions in the apocrine gland-bearing regions. The lack of knowledge about HS and its extremely heterogeneous clinical presentation, in terms of both lesion appearance and sites of involvement, frequently delay its diagnosis for several years. Objectives: in this study, using the latent class analysis, it was demonstrated that severity of HS could be evaluated not only with clinical or surgical characteristics but also with gender specificities.

Patients and Methods: Clinical and sociodemographic data of HS patients were retrospectively analysed with the latent class method in order to create a classification tool of disease severity.

Results: From the study of 1428 HS patients (544 men and 884 women), two classification models, depending on gender, were developed. Each classification model was composed of three distinct latent classes clearly identified and defined from mild-to-severe cases of HS. These classification models of HS severity were not distorted by patient ages and were coherent with Hurley stages but were more clinically precise.

Conclusion: In this study, a convenient classification tool, useful for facilitating decision support in routine practice, has been developed. This tool could be used to define clinical subgroups within a study population.

Keywords: hidradenitis suppurativa, classification, severity, latent class, Hurley stage

Introduction

Hidradenitis suppurativa (HS) concerning 0.10% of population, is an uncommon but not rare inflammatory skin disease,[1] characterized by recurrent or chronic painful and suppurating lesions in the apocrine gland-bearing regions.[2] The lack of knowledge about HS and its extremely heterogeneous clinical presentation, in terms of both lesion appearance and sites of involvement, frequently delay its diagnosis for several years.[3]

Considerable variability occurs in disease severity. As described by Ingram et al,[4] many instruments were used to evaluate HS severity in randomized controlled trials (RCTs).[4] In 12 RCTs included in an HS Cochrane review,[5] 30 outcome measure instruments were described; HS severity can be assessed by lesion count, physician's global assessment, or patient's global assessment using different tools alone or combined, which may be completed by ultrasound exams[6,7] (Supplementary Material 1).

Heterogeneity is a hindrance for HS research and will become an increasing problem if an outcome consensus process is not undertaken soon. More recently, Canoui-Poitrine et al[8] described an empirical classification of HS severity based on clinical

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variables and using a latent class (LC) method. Their results indicated the existence of three classes with clinical coherence.[8] However, these tools do not include all disease aspects (clinical presentation, evolution, comorbidities, and response to treatment) or patients' characteristics such as gender. Another important question would be whether there are predictors of severe disease that might justify early treatment to arrest disease progression, to prevent subsequent scarring and increase quality of life. Therefore, the ability to classify HS severity is an essential step towards conducting studies aimed at elucidating the etiology of HS, and at developing effective treatments and personalized therapy.

Given the heterogeneity of HS, it was hypothesized that underlying subclasses could be identified based on patient characteristics (gender, socio-demographic data, medical history, risk factors and hormonal influence). The aim of this study is to build a classification scheme based on clinical presentation, risk factors, treatment, and hormonal description to evaluate the severity of HS using the LC method.

Patients and Methods

Study Design and Data Collection

EpiVer was a prospective international multicentre cohort study conducted by an international network of 150 physicians involved in the management of HS, "ResoVerneuil" (Dermatologists, general surgeons, infectiologists, and geneticists). It included all consecutive patients with HS seen in consultations by ResoVerneuil members from 2016 to 2017. Anonymously recorded clinical examination data was collected using standardized case report forms (CRF) (Supplementary Material 2) for all HS patients who agreed to participate. According to the French law, this study requires the information of the patient and the collection of non-opposition to the treatment of his health data. In our study, this process was respected.

Statistical Analysis

The management and statistical analysis of the data was performed using SAS software (Version 9.4, SAS Institute, North Carolina USA). The risk of the first species (α) was fixed at 0.05.

Latent Class Analysis

The latent class method required a limited number of variables.[9] The CRF contained 40 questions (Supplementary Material 2), and none of them could be integrated into the model. Thus, selection and aggregation of variables to create 12 items was made and validated by the opinions of HS experts (based on factors associated with the disease and literature) and the actual impact of the variable on the disease was considered (cardiovascular history, other history, family history of HS, other family history, BMI, psychotropic, therapy and duration of treatment, number of attacks and multiple treatment, scores, pregnancy, menopause and contraception and hormonal influence). Among these 12 items, other history and other family history were excluded because of low impact on disease severity. For the model of male subjects, 7 items were selected, and 10 items were selected for the model of female subjects (Tables 1 and 2). Compared to the model of male subjects, the model of female subjects included the addition of hormonal data. The two models were generated separately using the SAS 9.4 LCA procedure. The missing data was handled as randomly missing (Missing At Random [MAR]). Latent classes were identified as "Mild", "Moderate" and "Severe" for both models, following HS expert analyses of modalities associated, clinical characteristics of population, in line with the literature and the clinical practice.

Definition of Latent Class for Both Models

The selection of the modalities, defining the latent class, was made by comparing the probability that each modality had of appearing in each of the different classes. When the modality was sufficiently discriminating, for one class compared to the others, it was selected (Figures 1 and 2).

Model Validation

The internal and external validation was made by comparisons of age and Hurley stage distribution in clusters defined by the LC method. These analyses were conducted to assess the reliability and the added value of the model.

Table 1 Conditional Probabilities of Baseline Characteristics Based on Latent Class Model Defined from 544 Men Patients with Hidradenitis Suppurativa (HS)

			Mild (LCmi) % (±SD)	Moderate (LCmo) % (±SD)	Severe (LCse) % (±SD)
Probability of membership in each class			28.02 (±2.99)	51.79 (±5.32)	20.18 (±6.58)
Conditional probabilities of:					
Modalities number	Modalities	Prevalence of indicators among the 544 men N(%)	Mild (LCmi) % (±SD)	Moderate (LCmo) % (±SD)	Severe (LCse) % (±SD)
	Cardiovascular history				
1	High blood pressure or stroke or transient ischemic attacks or angina and myocardial infarction or dyslipidemia or diabetes or type 2 diabetes	78 (14.34)	8.31 (±4.06)	0.00 (±0.00)	59.50 (±18.30)
2	No cardiovascular history	466 (85.66)	91.69 (±4.06)	100.00 (±0)	40.50 (±18.30)
	Family history of HS				
1	Yes	116 (21.32)	12.44 (±3.25)	21.35 (±3.08)	33.79 (±6.01)
2	No	427 (78.49)	87.56 (±3.25)	78.65 (±3.08)	66.21 (±6.01)
	BMI				
1	No obesity	401 (73.71)	82.66 (±4.47)	82.88 (±4.36)	42.75 (±6.43)
2	Obesity	136 (25)	17.34 (±4.47)	17.12 (±4.36)	57.25 (±6.43)
	Psychotropic				
1	Non-smoker (no cigarette or cannabis)	117 (21.50)	24.33 (±3.73)	23.67 (±2.82)	12.26 (±5.27)
2	] 0-5[cigarette packets per year or]0-0.2[cannabis joint per day	45 (8.27)	8.98 (±2.46)	7.86 (±1.71)	8.42 (±3.34)
3	At least 5 cigarette packets per year or at least 0.2 cannabis joint per day	381 (70.04)	66.69 (±4.06)	68.47 (±3.14)	79.32 (±5.76)
	Therapy and duration of treatment				
1	No antibiotic combination (2 or 3 antibiotics together) or treatment during less than 3 months	310 (56.98)	81.51 (±4.05)	50.08 (±3.28)	40.65 (±6.61)
2	Antibiotic combination (2 or 3 antibiotics together) or treatment during more than 3 months	234 (43.01)	18.49 (±4.05)	49.92 (±3.28)	59.35 (±6.61)
	Number of attacks and multiple treatment				
1	More of 2 treatment modalities (medical or chirurgical treatment) or number of affected areas > 3	366 (67.28)	0.01 (±0.82)	100.00 (±0.00)	76.71 (±8.50)
2	Less of than 2 treatment modalities (medical or chirurgical treatment) and number of affected areas ≤ 3	178 (32.72)	99.99 (±0.82)	0.00 (±0.00)	23.29 (±8.50)
	Scores				
1	EVA <6 and DLQI <11	139 (25.55)	35.83 (±4.27)	24.82 (±2.88)	22.35 (±5.67)
2	EVA ≥ 6 or DLQI ≥ 11	368 (67.65)	64.17 (±4.27)	75.18 (±2.88)	77.65 (±5.67)

Note: *Probability of each indicator among patients of this class

Abbreviations: HS, hidradenitis suppurativa; LC, latent class; BMI, Body Mass Index; EVA, the analogue visual scale; DLQI, Dermatology Life Quality Index.

Table 2 Conditional Probabilities of Baseline Characteristics Based on Latent Class Model Defined from 884 Women Patients with Hidradenitis Suppurativa (HS)

			Mild (LCmi) % (±SD)	Moderate (LCmo) %(±SD)	Severe (LCse) % (±SD)
Probability of membership in each class			34.43 (±4.83)	36.10 (±5.36)	29.47 (±5.34)
Conditional probabilities of*:					
Modalities number	**Modalities**	**Prevalence of indicators among the 884 women N (%)**	**Mild (LCmi) % (±SD)**	**Moderate (LCmo) %(±SD)**	**Severe (LCse) % (±SD)**
	CARDIOVASCULAR HISTORY				
1	High blood pressure or stroke or transient ischemic attacks or angina and myocardial infarction or dyslipidemia or diabetes or type 2 diabetes	136 (15.38)	6.62 (±1.88)	18.71 (±2.82)	21.56 (±3.04)
2	No cardiovascular history	748 (84.61)	93.38 (±1.88)	81.29 (±2.82)	78.44 (±3.04)
	FAMILY HISTORY OF HS				
1	Yes	237 (26.80)	22.92 (±2.87)	26.36 (±3.40)	32.00 (±3.46)
2	No	646 (73.08)	77.08 (±2.87)	73.64 (±3.40)	68.00 (±3.46)
	BMI				
1	No obesity	589 (66.63)	76.73 (±2.97)	67.85 (±3.53)	55.48 (±3.76)
2	Obesity	287 (32.47)	23.27 (±2.97)	32.15 (±3.53)	44.52 (±3.76)
	PSYCHOTROPIC				
1	Non-smoker (no cigarette or hashish)	308 (34.84)	46.54 (±3.44)	27.57 (±4.03)	30.19 (±4.12)
2	] 0-5 [cigarette packets per year or] 0-0.2 [cannabis joint per day	92 (10.41)	19.28 (±2.63)	6.92 (±1.76)	4.34 (±1.71)
3	At least 5 cigarette packets per year or at least 0.2 cannabis joint per day	483 (54.64)	34.18 (±3.65)	65.51 (±4.63)	65.47 (±4.13)
	THERAPY AND DURATION OF TREATMENT				
1	No antibiotic combination (2 or 3 antibiotics together) or treatment during less than 3 months	455 (51.47)	62.58 (±4.03)	78.76 (±3.52)	5.18 (±12.25)
2	Antibiotic combination (2 or 3 antibiotics together) or treatment during more than 3 months	428 (41.42)	37.42 (±4.03)	21.24 (±3.52)	94.82 (±12.25)
	NUMBER OF ATTACKS AND MULTIPLE TREATMENT				

(*Continued*)

Table 2 (Continued).

			Mild (LCmi) % (±SD)	Moderate (LCmo) %(±SD)	Severe (LCse) % (±SD)
1	More of 2 treatment modalities (medical or chirurgical treatment) or number of affected areas > 3	555 (62.78)	47.79 (±4.04)	46.75 (±6.93)	99.94 (±0.40)
2	Less of than 2 treatment modalities (medical or chirurgical treatment) and number of affected areas ≤ 3	329 (37.22)	52.21 (±4.04)	53.25 (±6.93)	0.06 (±0.40)
	SCORES				
1	EVA<6 and DLQI<11	201 (22.74)	26.73 (±3.00)	26.45 (±3.13)	17.08 (±3.03)
2	EVA ≥ 6 or DLQI ≥ 11	642 (72.62)	73.27 (±3.00)	73.55 (±3.13)	82.92 (±3.03)
	PREGNANCY HISTORY				
1	Yes	463 (52.37)	2.77 (±9.47)	89.78 (±4.91)	64.52 (±4.79)
2	No	421 (47.62)	97.23 (±9.47)	10.22 (±4.91)	35.48 (±4.79)
	MENOPAUSE AND CONTRACEPTION				
1	Menopausal	66 (7.47)	0.01 (±0.13)	11.09 (±2.33)	12.49 (±2.43)
2	Non-menopausal without contraception	355 (40.16)	48.38 (±3.33)	38.27 (±3.40)	35.85 (±3.90)
3	Non-menopausal with contraception	443 (50.11)	51.61 (±3.33)	50.64 (±3.27)	51.66 (±3.95)
	HORMONAL INFLUENCE				
1	At least one aggravation	401 (45.36)	30.70 (±3.50)	56.43 (±4.00)	57.56 (±3.80)
2	No aggravation	435 (49.21)	69.30 (±3.50)	43.57 (±4.00)	42.44 (±3.80)

Note: *Probability of each indicator among patients of this class.
Abbreviations: HS, hidradenitis suppurativa; LC, latent class; BMI, Body Mass Index; SD, standard deviation; EVA, the analogue visual scale; DLQI, Dermatology Life Quality Index.

Results

Study Population

Between March 2016 and May 2017, 1428 consecutive HS patients were included in this study: 544 men and 884 women with a mean age of 33.5 (SD ± 11.31) years; 33 (± 11.29) years for men and 31 (± 11.31) years for women. Among them, 76.7% were smokers, 65.7% of the studied population had HS disease since less than fifteen years, and the mean age for the diagnosis was 29.1 years old (± 9.95). Of the subjects, 43.70% matched Hurley stage I, 39.85% Hurley stage II, and 15.76% Hurley stage III (0.70%, 10 patients could not be classified).

Two different models based on gender-specificities and using latent class analysis were created.

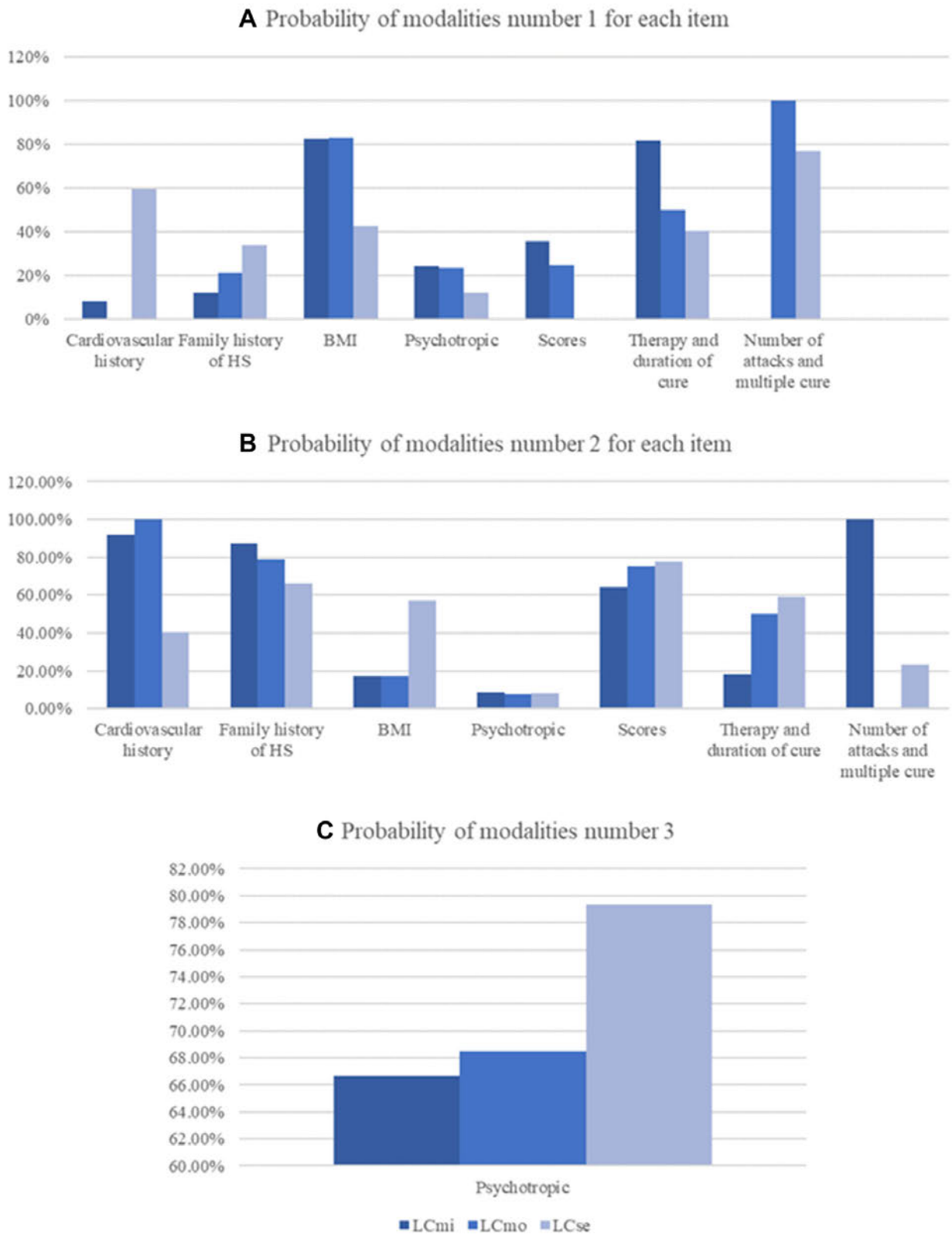

Figure 1 Probability of modalities numbers 1 (**A**), 2 (**B**) and 3 (**C**) (defined in Table 1) for each item depending on latent class for the male subject's model.

Figure 2 Probability of modalities numbers 1 (**A**), 2 (**B**) and 3 (**C**) (defined in Table 2) for each item depending on latent class for the female subject's model.

Model for the Male Subjects

Three classes ordering HS patients according to disease severity were defined: mild (LCmi), moderate (LCmo), and severe (LCse) HS (Table 1).

Among the 544 male patients, the probabilities a priori of belonging to the LCmi, LCmo, and LCse classes were 28.0%, 51.8%, and 20.2%, respectively.

Many differences were clearly identified between these three classes. LCse patients presented a higher probability of cardiovascular history than LCmo and LCmi patients (59.50% vs 0.0% and 8.31%, respectively) (Table 1). The family history probability of HS increased from the LCmi to the LCmo class and from the LCmo to the LCse class (12.44%, 21.35%, and 33.79%, respectively). Obesity was more present in LCse patients (57.25%) than in LCmi and LCmo patients (17.34% and 17.12% respectively). LCse patients had a higher probability of being smokers than LCmi and LCmo patients (79.32% ±5.76%, 66.69% ±4.06%, and 68.47% ±3.14%, respectively). In LCse and LCmo classes, the probability of having a heavy or long treatment (Antibiotic combination (2 or 3 antibiotics together) or treatment duration <3 months) was higher than in the LCmi class (49.92%, 59.35% vs 18.49%, respectively). The impact of HS (Analogical visual scale (EVA) or Dermatology life quality index (DLQI) high score (>6 or >11 respectively)) was higher for patients from the LCse and LCmo classes than for patients from the LCmi class (75.18%, 77.65% vs 64.17% respectively). Similarly, the number of affected areas and treatments was higher in the LCse and LCmo classes than in the LCmi class (100%, 76.71% vs 0.01% respectively) (Table 1).

To summarize (Figure 1), latent classes identified by the algorithm for HS severity classification of the male population could be defined by:

LCmi: Mild HS

- No previous cardiovascular history (91.69%),
- No obesity (82.66%),
- No antibiotic combination (2 or 3 antibiotics together), or treatment duration <3 months (81.51%),
- Less than 2 treatment modalities (medical or surgical treatment), and number of affected areas ≤3 (99.99%).

LCmo: Moderate HS

- No previous cardiovascular disease history (100%),
- No obesity (82.88%),
- More than 2 treatment modalities (medical or surgical treatment), or number of affected areas >3 (100%).

LCse: Severe HS

- Cardiovascular history (59.50%),
- More than 2 treatment modalities (medical or chirurgical treatment), or number of affected areas >3 (76.71%).

Model for the Women (Table 2)

Three classes were established to characterize HS severity in women population: mild (LCmi), moderate (LCmo), and severe (LCse) HS. Among the 884 women, the probabilities a priori of belonging to the LCmi, LCmo, and LCse classes were 34.4%, 36.1%, and 29.5%, respectively.

Unlike in the model for the male subjects, cardiovascular and family histories were not selected to define disease severity (Table 2). LCse and LCmo patients had a higher probability of presenting with risk factors (Obesity: 32.15% (severe HS), 44.52% (moderate HS) vs 23.27% (mild HS), Smoker: 65.51% (severe HS), 65.47% (moderate HS) vs 34.18% (mild HS)), and a lower quality of life (a DLQI score > 11 and an EVA score >6:73.55% (severe HS), 82.92% (moderate HS) vs 73.27% (mild HS)) than LCmi patients. LCse patients presented with a higher probability of having heavy or long treatment (multiple treatments and number of affected areas > 3: 99.94% (severe HS) vs 46.75% (moderate

HS) and 47.79% (mild HS), and antibiotic combination (2 or 3 antibiotics together) or treatment > 3 months: 94.82% (severe HS) vs 37.42% (mild HS) or 21.24% (moderate HS)) along with more than 3 affected areas than the other classes.

In the model for female patients, hormonal influence, pregnancy, and menopause impact were analyzed. The LCse and LCmo patients showed a higher probability of a previous pregnancy (64.52% and 89.78% respectively) or menopause (12.49% and 11.09%, respectively) than LCmi patients (2.77% and 0.01%, respectively). In LCmo and LCse patients, hormonal influence had a higher impact on the severity stage by at least one aggravation (HS during pregnancy, after delivery, and in link with menopause or the menstrual cycle) than in LCmi patients (56.43% and 51.66% vs 30.70%).

To summarize (Figure 2), latent classes identified by the algorithm for HS severity classification of the women population could be defined by:

LCmi: Mild HS:

- Fewer smokers (46.54%),
- -No antibiotic combination (2 or 3 antibiotics together) or treatment duration <3 months (62.58%, but less than in LCmo),
- With a history of pregnancy (97.23%),
- No aggravation due to hormonal influence (69.30%).

LCmo: Moderate HS:

- Mostly smokers (65.51%),
- No antibiotic combination (2 or 3 antibiotics together) or treatment duration <3 months (78.76%; but more than in the LCmi class),
- With a history of pregnancy (but more than LCse) (89.78%),
- At least one aggravation due to hormonal influences (56.43%).

LCse: Severe HS:

- Mostly smokers (65.47%),
- With antibiotic combination (2 or 3 antibiotics together) or treatment duration ≥3 months (94.82%),
- With a history of pregnancy (but less than LCmo) (64.52%),
- At least one aggravation due to hormonal influences (57.56%),
- More than 2 treatment modalities (medical or surgical treatment) or number of affected areas >3 (99.94%).

Validation

The mean age for the model of men patients was 32 years (min 13– max 63) in LCmi class, 33 years (min 10– max 67) in LCmo class, and 45 years in LCse class (min 15–max 67) ($p < 0.001$). In the model of female subjects, the mean age was 26 years (min 9–max 51) in the LCmi class, 38 years (min 13– max 72) in the LCmo class, and 37 years (min 14–max 96) in the LCse class ($p < 0.001$) (Figure 3).

In this classification, Hurley stage distribution increased along with the HS severity, but it was not exactly the same while remaining consistent. The majority of male patients with Hurley stage I were present in LCmi class (53.8%) and to a lesser extent, in LCmo and LCse classes (33.9% and 23.5% respectively). Similarly, patients with Hurley stage III were more prevalent in LCse class (36.8%) than in LCmo or LCmi classes (22.2% and 11.9% respectively) ($p < 0.001$) (Figure 4).

Most female patients with Hurley stage I were present in LCmi class (60.1%) and, to a lesser extent, in LCse and LCmo classes (52.7% and 28.8% respectively). Hurley stage III patients were more prevalent in LCse class (23.2%) than in LCmo or LCmi classes (7.1% and 8.1% respectively) ($p < 0.001$) (Figure 4).

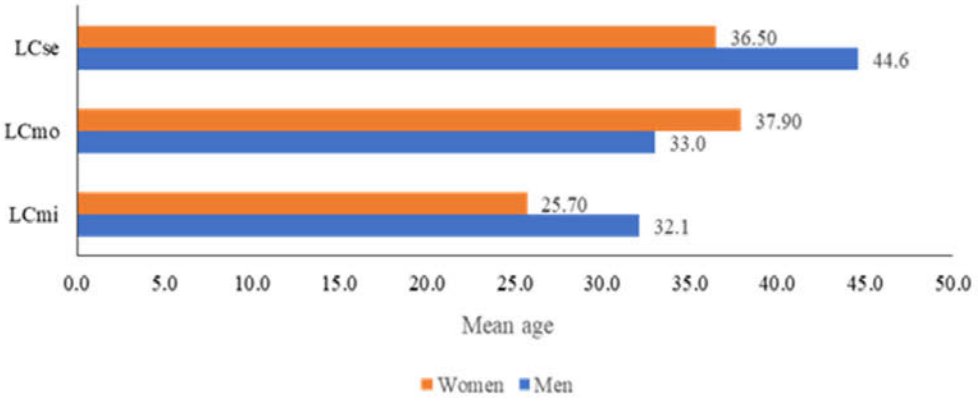

Figure 3 Mean age of men (p<0.001) and women (p<0.001) depending on HS severity classes.

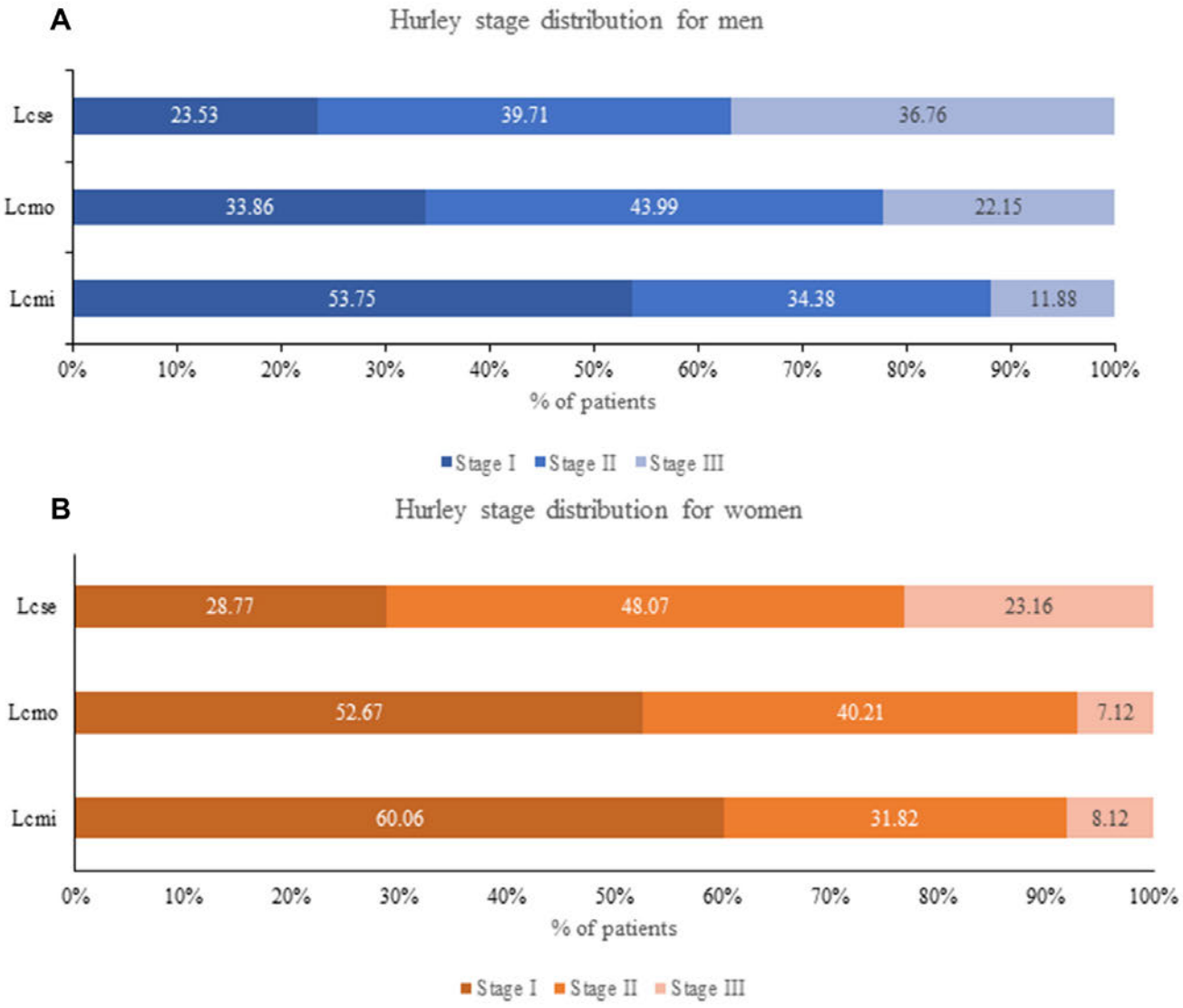

Figure 4 Description of patients' distribution in our models, depending on Hurley stage, for men (**A**) and women (**B**).

Patient's Classification

The *a posteriori* probability belonging to each class is calculated with the following formula (See details on Supplementary Material 3):

$$P(L = c/Y = y) = \frac{\left(\prod_{j=1}^{J}\prod_{r_j=1}^{R_j}\rho_{j,r_j/c}^{I(y_j=r_j)}\right)\times\gamma_c}{\sum_{c=1}^{C}\gamma_c\prod_{j=1}^{J}\prod_{r_j=1}^{R_j}\rho_{j,r_j/c}^{I(y_j=r_j)}}$$

An Excel tool was developed and proposed to easily classify individuals into an HS severity class using patient characteristics and based on calculations of *a posteriori* probability presented here (This tool is available from request to the corresponding author).

Discussion

Exploitation of this large cohort of patients (n = 1428), composed of 544 men and 884 women, has enabled two classification systems of HS severity to be created based on gender characteristics and using latent class analysis. The results of this study demonstrate the existence and precise definition of three classes for each gender: LCmi, LCmo, and LCse HS identified as mild, moderate, and severe HS. This severity classification makes clinical sense. Model validation was performed by internal and external evaluation and proved that the models were not based on patient ages. The model validation also proved that the models were coherent with the Hurley stages but were more precise because it considers clinical, socio-demographic, lifestyle and gender aspects. Sartorius method was too complex to be used in an outpatient context and to be used to validate this tool.

Baseline disease severity in each skin region is often measured using the Hurley staging system, which is relatively insensitive to change. Although it successfully provides an overall staging of disease severity, it is lacking in detail; indeed, it does not take into account treatment response and the other aspects of the disease.[3] The Hurley staging system is very useful for the overall classification of cases and may form the basis for the selection of appropriate treatment. Among patients with HS who seek help from dermatologists, cases graded as Hurley II form the majority. Within this group, there is a wide variety of clinical findings and symptoms.[10] Other instruments are used to measure treatment efficacy for HS disease, such as Canoui-Poitrine classification. These instruments are based on clinicopathological characteristics and do not include gender specificities or lifestyle information.[8] As described before, several physician-reported or patient-reported instruments are available in the literature. However, most have not undergone robust validation[5], and do not allow all disease specificities to be considered. Moreover, all classification systems made before now have not used gender differentiation, despite HS being a predominantly female disease[1]. These tools need to be combined to be more efficient in HS severity evaluation. Therefore, it is important to develop a more detailed scoring system to evaluate HS severity.

The classification system in this study considers all factors could affect the disease severity. It details the impact of gender characteristic specificities, comorbidities, and lifestyle on disease severity. This classification process confirmed the starting hypothesis that men's and women's HS severity need to be determined following different modalities. This study showed that the variables influencing the severity of the disease vary among men and women. It should be noted that the items included in the composition of the aggregated variables used for our classification have also been selected by other authors. Sartorius et al described the impact that obesity and tobacco smoking[10] have on HS severity. Their results were in line with the results of this study, which show that obesity and smoking are associated with the LCse class. Garg et al showed that HS was more prevalent among female patients than among male patients.[1] The role of hormones in HS remains unclear,[11] but the observation of premenstrual flares, female predominance, and improvement during pregnancy suggest a hormonal/metabolic background.[12] These results are also in line with the effect of menopause on symptom attenuation that has been reported previously.[13] The reported positive effects of antiandrogen therapy may support the possibility that androgens play a negative role in HS."[12] However, a new study about the role of gender in HS in a Korean population found the female-to-male ratio was 1:1.6. They described "a remarkable predisposition for HS among males" and noted that this finding was contrary to the findings usually reported in European studies,[14] but was in

line with results shown in recent Japanese[15] and Turkish studies.[16] Two hypotheses based on genetic and environmental factors were developed to explain "Asian" vs "European" difference. First, the discrepancies in gamma-secretase gene mutations occurring between Asian and European studies could contribute to this difference, as they indicate a different genetic background, and second, the divergent smoking habits in Eastern and Western countries could also be a contributing factor.[17] Obesity contributes significantly to HS pathogenesis; diabetes, dyslipidemia, the metabolic syndrome, and polycystic ovarian syndrome are among the most common comorbidities.[12] The model based on female subjects which was established in this study confirmed this hypothesis by indicating a high probability of subjects having a history of pregnancy and hormone influence in the LCmo and LCse classes.

The LC analysis is a powerful method for classifying patients with similar patterns. LC analysis allowed for the determination of 3 clusters using Bayesian information and assigned each cluster of probabilities to the category of each variable.[18]

Data were collected prospectively from consecutive patients with a standardized CRF. Three classes of disease severity were defined for each gender: mild, moderate, and severe HS. Internal and external validation, with age and Hurley stage distribution, confirmed the reliability and the added value of the models. From a clinical point of view, it was necessary to take many factors into consideration when assessing the severity of the disease. In this study, modalities selected to describe latent classes were treated together, and it is the association of these different characteristics that provide the disease severity level. These results show the coherence and the added value of the models created.

The main limitation of the latent class method is that this process requires a balance between the number of variables to be used, their associated modalities, and the fineness of the classification. Multiple factors were considered during variable aggregation. There was also a possible bias in the number of previous treatments. Patients included in this study were predominantly outpatients; therefore, they had received fewer treatments than those patients who had attended follow-up in a hospital setting. Finally, it was not possible a *posteriori*, from the CRF, to re-classify patients according to the redefined Hurley. Similarly, we did not have the means to compare our results with the IHS4 score.

The lack of attention to HS research in the past means that there is still considerable room for improvement in this area of health care, and recent findings have indicated that there is phenotypic heterogeneity within the disease spectrum.[19] Numerous scales and severity scores exist (Hurley, IHS4, HS-PGA, Hi-SCR, etc.) but they do not allow to assess the overall burden and severity of HS. The therapeutic arsenal is bound to expand considerably in this pathology. Defining the severity of the disease (in terms of therapeutic pathways, comorbidities, severity) will have a definite impact on therapeutic decisions and highlighted the role of the Excel tool developed here. The HS classifications determined in this study should have many implications and may help establish homogenous subgroups of HS patient populations that could be used for treatment selection and clinical randomized trials. This tool may contribute to current practice by helping with the classification of HS patients.

Conclusion

The classification method used in this study has shown different prognostic factors depending on patient gender. Three distinct levels of HS disease severity in male and female populations have been established. These classes are clearly defined and identified from mild to severe. This study developed a convenient classification tool, which is useful for facilitating decision support in routine practice. This tool could potentially assist with clinical testing by defining clinical subgroups in a study population. It could also identify certain candidate classes for future specific treatments.

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Disclosure

The authors report no conflicts of interest in this work.

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- E BIP

Investigateur principaL : Dr Hélène Aubert

Objectif : Evaluer les stratégies d'adaptation des doses des biothérapies lors de l'obtention de la rémission du psoriasis

Communications

Journées dermatologiques de Paris 2019

Stratégie d'espacement et de diminution des doses de traitementpar biothérapie dans le psoriasis cutané en rémission ou avec une faible activité : enquête de pratique

Helene Aubert, Emmanuel MAHE, Anne-Claire FOUGEROUSSE, François Maccari, Nathalie BENETON

ETUDE TERMINEE

ENQUETE DE PRATIQUE

54 dermatologues ayant participé

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Autres communications

EHSF 2022

Surgery in hidradenitis suppurativa through the prism of published guidelines

Anne Cecile Ezanno, Anne-Claire Fougerousse, Pierre-André Becherel, François Maccari, Ziad Reguiai, Philippe Guillem, on behalf of the GEM Réso Verneuil

HS in patients with pilonidal sinus disease: development and internal validation of a risk calculator

Farida Benhadou1, Axel P. Villani, Virginie Vlaeminck-Guillem, Philippe Guillem

Intrafamily concealing for hidradenitis suppurativa: what can we learn from intrafamily variability ?

Virginie Vlaeminck-Guillem1, Philippe Guillem, 1Université Claude Bernard Lyon 1, Lyon, France; Hospices Civils de Lyon, Centre Hospitalier Lyon Sud, Service de Biochimie Biologie Moléculaire Sud, Lyon, France; RésoVerneuil, Paris, France; Clinique du Val d'Ouest, Department of Surgery, Ecully, France

Autres publications

The role of negative-pressure wound therapy in the management of axillary hidradenitis suppurativa. Int Wound J. 2022 May;19(4):802-810.

Ezanno AC, Fougerousse AC, Guillem P; GEM Resoverneuil

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ORIGINAL ARTICLE

IWJ WILEY

The role of negative-pressure wound therapy in the management of axillary hidradenitis suppurativa

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KEYWORDS
axillary, hidradenitis suppurativa, negative-pressure wound therapy, wide surgical excision

Key Messages

- Multiple reconstructive modalities after wide axillary excisions have been described, including skin grafts, flaps and healing by secondary intention.
- NPWT for axillarywound management after wide excision is possible and is possible.
- The advantages of NPWT healing are reduced length of hospitalization, reduction in the number of postoperative complications and low recurrence rate (5%).
- NPWT was well-perceived by our patients and the satisfaction study suggests that patients satisfied with the surgery, because 75% them recommend the surgery to other patients with HS.

1 | INTRODUCTION

Hidradenitis suppurativa (HS), or acne inversa, is a chronic inflammatory dermatosis, which affects the apocrine glands and pilosebaceous unit, is a characteristic of the intertriginous regions and, more frequently, is found in the axillary and inguinal areas. It profoundly alters the quality of life of patients. The prevalence of HS is 0.3% to 4% in industrialised countries and primarily affects younger individuals (mean age of onset 23 years), with a female to male ratio of 4:1.[1] Several studies have shown that axillary involvement occurs in around 72% of cases, followed by perianal (32%), groin (24%) and mammary involvement (8%).[2,3]

A genetic factor with an autosomal dominant heritance has been identified in one-third of patients with HS.[2] Smoking and obesity are both well-known factors related to the development and severity of HS.[4,5]

The diagnosis of HS is made clinically, and biopsies are seldom required. Various staging systems have been created to objectify and clarify the severity of the disease. The Hurley staging system is most frequently used for HS. Stage I consists of a solitary or multiple isolated abscesses, without sinus tracts or scarring. Stage II is characterised by recurrent abscesses, single or multiple widely separated lesions, with sinus tract formation, and stage III relates to diffuse or broad involvement across a regional area, with multiple interconnected sinus tracts and abscesses.[6] Clinical management with topical and systemic antibiotics has been described, as well as more recently, the use of immunosuppressants, such as inhibitors of tumour necrosis factor (TNF)$-\propto$, with encouraging results.[7-10] In severe cases of HS, medical therapy

GEM Resoverneuil: French Multicentric Study Group.

alone is inadequate, and wide local excision of all skin in the affected region offers the best hope for local disease control.[2] The most common surgical procedures are incision with drainage, deroofing and limited or wide excision. Incision with drainage is usually performed in acute stages to drain pus from abscesses and to relieve pain, but recurrence rates of up to 100% have been reported.[2,11,12] Deroofing is a surgical technique that consists of surgical removal of the skin covering a tunnel, laying open the partially tunnel floor for healing by secondary intention. It has been proposed as an efficient means for recurrent lesions in a mild phase of the disease.[13] If the disease is localised, limited excision can be performed. Simple local excision includes the removal of the entire sinus tract and can be closed directly. This technique has a short duration of care but a very high recurrence rate. Mehdizadeh et al [12] in a systematic review and meta-analysis published in 2015 showed a recurrence rate of 13% for wide excisions and 22% for limited excisions. Wide excision is the standard treatment for advanced cases. However, it creates a large defect. Hence, the problem with wide local excision is how to close the defect. Several studies have examined different methods of closure after excisions of HS, including skin grafts, locoregional and free flaps and healing by secondary intention.[2,3]

Wide local excision in the axillary areas often leads to large defects that are difficult to close primarily as function and range of motion are prioritised.[14] This is probably the reason why surgical techniques used to reconstruct axillary defects include the most numerous options.[15] Wound healing by secondary intention provides good results, and recent studies have confirmed the success of earlier reports.[15] This procedure has essentially one disadvantage: a long recovery time (several weeks), with heavy dressings. To try to reduce the axillary healing time, several other techniques have been developed. Split-thickness skin grafts (STSG) or flaps have shorter healing time and give satisfactory results but need immobilisation of the arm, leave sequelae in the donor sites and do not always prevent retractile scarring. Furthermore, the aesthetic result is pretty poor[16] and concerns persist about the recurrence rate as compared with healing by secondary intention. British guidelines [10] consider healing by secondary intention or thoracodorsal artery perforator (TDAP) flap closure for axillary wounds in people with HS following extensive excision. Therefore, to date, no randomised study has demonstrated an optimal approach to the surgical treatment of axillary HS, and none of the surgical procedures are superior to the others.[17]

The current study aimed to describe and evaluate the results of the use of negative-pressure wound therapy (NPWT) as a method of healing axillary defects after wide surgical excision for HS.

2 | METHODS

We designed the study as a retrospective analysis in surgery department in Begin Hospital, St Mandé, France. This study is based on the review of all consecutives patients undergoing surgical treatment for axillary HS between September 2017 and December 2019 and treated with combined wide surgical resection and NPWT. Surgery was indicated essentially for Hurley stages II and III, after antibiotic failure.

2.1 | Surgical technique

For each patient, we performed a radical wide excision in the operating room under general anaesthesia. Complete excision of all involved skin and subcutaneous tissue was performed. The width and depth of dissection were guided by extent of disease, with a disease-free surgical margin of 1 cm. The surgical specimen was sent to the pathologist. The final dressing for all patients was an NPWT system set at 100 mmHg. This was changed every 2 to 3 days and establishes for a maximum period of 15 days after surgery. After stopping TPN, patients had daily care with alginate wicking.

2.2 | Postoperative wound care

The goal of postoperative wound care was to maintain a moist and clean wound, being achieved with wound dressing changes. Patients were followed up 2 weeks postoperatively and subsequently every month until complete wound healing was achieved.

Demographic data were collected on age, sex, comorbidity, smoking, body mass index, American Society of Anesthesiologists (ASA) score duration of the disease and HS treatment. The severity of HS was classified using the Hurley classification.[6] Operative variables that were measured included operating time, size of excised area (according to the pathology reports), hospital stay, duration of NPWT, complications, time to complete healing and recurrence of HS.

We assessed patients' satisfaction by using a standardised form. The form consisted of questions:

1. Are you satisfied concerning shoulder mobility?
2. Are you satisfied concerning aesthetic results?
3. Are you satisfied concerning NPWT?

TABLE 1 Patients demographics

		Number of patients (*n*, %)	Mean ± SD	Ranges
Patients		20		
	Men	8 (40%)		
	Women	12 (60%)		
Age (years)			27.1 ± 7.7	15 to 40
BMI (kg/m^2)			28.2 ± 5	20.3 to 42.5
Tabaco (yes)		11 (55%)		
ASA score				
	ASA 1	9 (45%)		
	ASA 2	11 (55%)		
Medical treatments				
	Systemic antibiotics	15 (75%)		
	Anti-TNF	2 (5%)		
Disease duration years			7.1 ± 6.7	1 to 20
Age of illness onset			19.9 ± 5.7	11 to 37
Patients with unilateral excision			4 (20%)	
Patient with bilateral excision			16 (80%)	
Size of the operated axilla	35			
	Left	17 (48.6%)		
	Right	18 (51.4%)		
Hurley's stage				
	Stage 2	10 (50%)		
	Stage 3	10 (50%)		

Abbreviations: ASA, American Society of Anesthesiologists; BMI, body mass index; TNF, tumour necrosis factor.

4. Would you do this surgery with NPWT again?
5. Would you recommend the surgery to another HS patient?

For each question, one answer was possible: completely satisfied, partially satisfied, moderately satisfied, not completely satisfied and not at all satisfied. The patients were interviewed by the same person either in consultation, by telephone or by e-mail.

The judgement criteria were length of hospitalisation, time to complete healing, complications, patient satisfaction scores about the surgery and the presence or absence of local recurrence of the disease.

2.3 | Statistical analysis

Continuous variables are presented as means (standard deviations [SDs]) or medians (ranges), and categorial variables are presented with numbers (%). We used an Microsoft Excel spreadsheet, in its version of Microsoft Office 2019, to tabulate the data, and XLStat software to perform the statistical analysis.

3 | RESULTS

3.1 | Population characteristics (Table 1)

In this retrospective study, we analysed data from 36 surgical procedures consecutively performed for 20 patients with HS between 2017 and 2019 (16 patients underwent bilateral procedures and 4 underwent unilateral procedure). The mean age of patients was 27.1 ± 7.7 years, 60% were female, the average BMI was 28.2 ± 5 kg/m^2 and 55% were smokers. The Hurley stage at surgery was III for 10 (50%) patients and II for the remainder of the patients. The mean duration of disease before surgery was 7.1 ± 6.7 years. Fifteen patients (75%) had received treatment with antibiotics, and five patients (15%) had received treatment with anti − TNF ∝.

TABLE 2 Results

	Number of patients (*n*, %)	Mean ± SD	Extremes
Excised area (cm^2)		46.6 ± 43	10 to 195
Operative time (minutes)		39.4 ± 13	20 to 64
Length of hospitalisation (days)		3 ± 0.2	3 to 4
Length of NPWT healing (days)		18.5 ± 9	5 to 39
Length of complete healing		115 ± 85	21 to 407
Complication	5 (25%)		
Infection	2 (5.7%)		
Bleeding	0		
Pain	4 (11.4%)		
Loss of mobility	1 (2.8%)		
Length of follow-up (days)		375.5 ± 226.3	37 to 764
Recurrences of HS	1 (5%)		

Abbreviations: HS, hidradenitis suppurativa; NPWT, negative-pressure wound therapy.

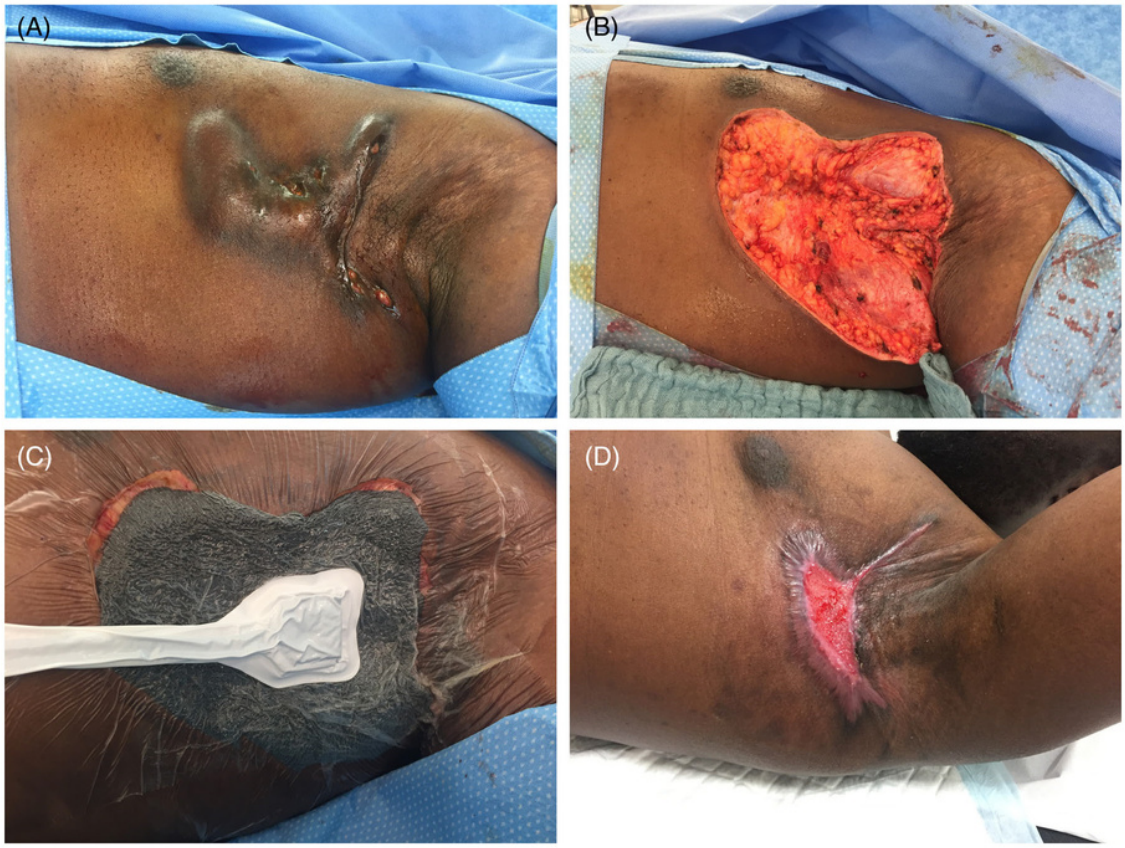

FIGURE 1 A, Before wide excision. B, After wide excision. C, negative-pressure wound therapy (NPWT). D, 2 months after wide excision

3.2 | Surgical characteristics (Table 2 and Figure 1)

Each patient was free to choose a unilateral or bilateral procedure (in cases of bilateral pathology). Among the 20 patients, 16 (80%) patients underwent bilateral procedures. The average excised area was 46.6 ± 43.0 m^2, and the mean operative time was 39.4 ± 13 minutes. The average length of hospitalisation was 3 days. The average duration of NPWT was 18.5 ± 9 days, and the mean complete healing

TABLE 3 Satisfaction study

	Not at all (*n*, %)	Not totally (*n*, %)	Moderately satisfied (*n*, %)	Partially satisfied (*n*, %)	Completely satisfied (*n*, %)
1-Are you satisfied concerning shoulder mobility?	0	0	3 (15.8%)	7 (36.8)	9 (47.4)
2-Are you satisfied concerning aesthetic results?	1 (5.3%)	1 (5.3%)	3 (15.8%)	8 (42.1%)	6 (31.5%)
3-Are you satisfied concerning NPWT?	1 (5.3)%	0	2 (10.5%)	2 (10.5%)	14 (73.7%)
4-Would you do this surgery with NPWT again?	4 (21%)	1 (5.3%)	2 (10.5%)	4 (21%)	8 (42.1%)
5-Would you recommend the surgery to another HS patient?	2 (10.5%)	0	2 (10.5%)	3 (15.8%)	12 (63.2%)

Abbreviations: HS, hidradenitis suppurativa; NPWT, negative-pressure wound therapy.

time was 115 ± 85 days. Among the 36 procedures, there were five (13.8%) complications. The most frequent were pain (11.4%), infection (5.7%) and loss of mobility (2.8%). None of the complications required a new hospitalisation.

3.3 | Follow-up and recurrence

The mean follow-up was 412.5 ± 195.2 days. We recorded only one recurrence among the 19 patients who were followed. One patient was lost to follow-up 3 months after surgery.

3.4 | Satisfaction study (Table 3)

Among the 20 patients, 19 patients returned the satisfaction form. For shoulder mobility results, a total of 9 (47.4%) patients were completely satisfied, 36.8% were partially satisfied, and 15.8% were poorly satisfied. For the aesthetic results, only 6 (31.6%) patients were completely satisfied. Concerning NWPT, 14 (73.7%) patients were completely satisfied, with only 8 (42.1%) patients accepting another surgery with the same procedure. In all, 12 (63.1%) patients would recommend this surgery to another patient (Table 3). The average score on the satisfaction questionnaire was 20.5 ± 4.2 points (min 11–max 25).

4 | DISCUSSION

Multiple reconstructive modalities after wide axillary excisions have been described, including skin grafts, flaps and healing by secondary intention. Much discussion has been dedicated to determining the ideal postexcisional reconstructive modality, with pertinent outcomes of local disease recurrence rate, time to complete healing, donor site morbidity, function and aesthetics. Healing by secondary intention after excision of HS has been described, with successful wound healing results,[18] and seems to have less pain than grafting,[19] cosmetically acceptable scars, lack of donor sites, no flap or graft loss and an acceptable range of motion with a low incidence of contractures.[18] Disadvantages include relatively long healing times, painful dressing changes, need for meticulous wound care and risk of wound contracture, particularly with large excisions. The TDAP and STSG in the management of chronic axillary HS improved the time to healing. However, these methods have significant morbidities and donor-site limitations. Moreover, STSGs and flaps increased both operative time and length of hospitalisation, as well as may lead to an increased number of surgical procedures.[20] Chen et al demonstrated in 2011[21] that only the extremely huge defects will require a skin graft or flap,[21] but in some cases, the excision creates very large skin defects such that local or perforator flaps may not be adequate for the reconstruction.[12,22,23]

According to the patient's choice, wound size and all the disadvantages already mentioned for skin grafts or flaps, our centre prefers wound healing by secondary intention. We argue that wound healing by secondary intention has advantages, including cosmetically acceptable scars, lack of donor sites, no flap or graft loss and functional outcomes with a low incidence of contractures.[18] Moreover, in a small study ($n = 10$), Morgan et al[19] implied that patients possibly prefer healing by secondary intention over skin grafting. Bieniek et al[24] demonstrated favourable cosmetic results with healing by secondary intention after surgery for HS. In order to reduce the healing time, we proposed a two-step healing strategy. The use of NPWT for 2 weeks on an open wound created after wide excision of HS lesions to remove residual infections provided drainage and improved perfusion before secondary healing with mesh.

TABLE 4 Summary of articles on surgical interventions in patients with axillary hydratenitis suppuritiva published since 2010

Study, year	No. of patients	Closure type	Length of surgery (min)	Excised area (cm^2)	Length of hospitalisation (day)	Length of healing (days)	Complication (n; %)	Recurrence rate (%)	Length follow up (month)
Busnardo et al (2011)[32]	12	Flap	ND	ND	ND	ND	ND	38.8%	6 months
Afsharfard et al (2020)[17]	13	STSG and flap	ND	ND	ND	ND	ND	0	1 year
Wormald et al (2014)[33]	27	Graft and flap	146.5 ± 69.8	ND	5.6 ± 2.9	70.7 ± 89.6	ND	3.7%	1 year
Ortiz et al (2010)[34]	16	Thoracodorsal artery perforator flap	ND	ND	ND	ND	ND	0	ND
Marchesi et al (2018)[25]	17	Thoracodorsal artery perforator flap	151 ± 31	94.5 ± 38	1 to 5	20 ± 9	N = 6; 35%	ND	ND
Pearce et al (2017)[26]	7	NPWT + STSG	ND	335	8.8 ± 4	38.7 ± 15,3	ND	ND	1 months
Elgohary et al (2018)[30]	20	Thoracodorsal artery perforator flap	210 ± 25	Range 96 to 204	6 ± 3	ND	N = 7; 35%	ND	30 months ± 5.2
Elboraey et al (2019)[31]	6	Propeller flap	ND	Range 66 to 252	4	ND	N = 2; 33%	0	10 months mean
Ching et al (2017)[35]	4	Transposition flap	ND	ND	ND	ND	N = 1; 25%	0	18 months
Wu et al (2020)[28]	34	Rotation flap	4 ± 16	84	0	ND	N = 13; 25%	10%	32 months
Gonzaga et al (2013)[27]	4	Graft with bilayer dermal regeneration	ND	Range 200 to 300	ND	ND	N = 1; 25%	0	23 months
Hallock et al (2013)[36]	2	Thoracodorsal artery perforator based V-Y advancement	ND	90	ND	45,5	1 (minor)	0	9.5 months
Varkarakis et al (2010) [37]	15	Rotation flap	ND	212	ND	ND	N = 4; 26.6%	0	12 months
Nail-Barthelemy et al (2019)[16]	13	Perforator flap	76.2 ± 18.8	58 ± 31.5	5.1 ± 3.1	20.5 ± 13.5	N = 6; 46%	0	9 months
Calibre et al (2013)[38]	5	Skin grafting + NPWT	ND	ND	ND	34 (20–43)	0	ND	ND
Jandali et al (2013)[29]	9	Thoracodorsal artery perforator	ND	74	ND	ND	N = 2; 22;%	11.1%	20 months
Mean	**12.7**		**125.94**		**4.9**	**38.2**	**26.4%**	**1.4%**	**±15**

Abbreviations: NPWT, negative-pressure wound therapy; STSG, split-thickness skin graft.

Our time to complete healing was higher than that in previous studies and this whatever the mode of wound care: grafts flaps or secondary intention (115 days). The average excised area was 46.6 ± 43 cm^2. This size seems to be lower than that in other studies.[16,25-31] In this analysis of 35 wide excisions with wound healing with NPWT, the operative time was 39.4 minutes, and length of hospitalisation was 3 days. A systematic review of the literature on axillary surgery for HS (Table 4)[16,17,25-29,31-38] from 2010 to 2020 showed a mean operative time of 125.9 minutes, mean length of hospitalisation of 4.9 days and time to complete healing of 38.2 days. However, in several studies, these points are not reported, which makes comparisons to our study difficult. The studies carried out essentially sought to evaluate the rate of recurrence, mobility of the shoulder and aesthetic results, as well as time to healing after excision of HS. The scant data available described a time to healing between 20 and 150 days.[14,39-41]

In this study, we measured the local recurrence rate of HS at 5% (one patient) with a mean follow-up of 1 year. The recurrence risk after wide excision was estimated at 6% to 38%.[18,42-44] Recurrence rates were reported for primary closure (54%–70%),[45] STSGs (0%–33%)[18,46,47] and flaps (0%–6.6%).[18,33,37] Our recurrence rate seems very low and must be confirmed with a longer follow-up study. Mehdizadeh et al,[12] in a systematic review and meta-analysis published in 2015, showed a recurrence rate of 13% (95% CI 5.0–22.0) for wide excisions and 22% (95% CI 10.0–37.0) for limited excisions. Fertitta et al[43] updated this analysis from 2015 to 2019 and found a recurrence rate between 12.4% and 54.2%.

For severe cases, NPWT has been developed and is commonly used in the management of open and contaminated wounds nowadays.[48] NPWT in HS has been used more frequently in severe perineal cases.[21,39-41] It has been suggested that this system improves wound healing by increasing blood flow and formation of granulation tissue, reducing the bacterial load and thereby reducing the size and complexity of the wound.[39,48,49] It should be noted that in this series, the patients benefited from an average of 18.5 ± 9 days of healing by NPWT. In two cases, the TPN healing method was stopped earlier than expected (before the 15th day) because of pain during dressings. This is quite frequent with this device in spite of adapted analgesics.

In our study, the satisfaction score seems high, with an average score of 20.5 points (out of 25 points). We deliberately chose to create a satisfaction questionnaire for our patients, because we did not find an appropriate questionnaire in the literature. The 'DLQI' is a tool often used to assess the quality of life of many dermatologic diseases, but it was not routinely given pre-operatively to our patients. We admit that our questionnaire, which is very simple and non-specific, has its own limitations and is not as standardised as the DLQI. However, it allows us to see that the NPWT was well-perceived by our patients. The satisfaction study suggests that patients were completely or partially satisfied with the surgery because 75% them recommend the surgery to other patients with HS.

4.1 | Limitations

The limitations of our study are its lack of power (because it is a single-centre retrospective study), small sample size and lack of an arm to compare the results to the use of healing by secondary intention without NPWT. Therefore, this study aims to be a preliminary work to further studies.

5 | CONCLUSION

Axillary HS is a difficult disease to manage. Several reconstructive modalities after wide axillary excision have been described, but none have shown their superiority. Our study allows to show despite the small number of patient that the use of NPWT for axillary wound management after wide excision in HS is not only safe and simple but also has a shorter operative time and hospital stay, with an acceptable complication rate and lower recurrence rate.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

INFORMED CONSENT

The patients in this manuscript have given written informed consent to publication of their case details.

DATA AVAILABILITY STATEMENT

Data available on request due to privacy/ethical restrictions.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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Successful treatment with high dosage infliximab after failure of IL17 inhibitors: a series of 12 hidradenitis suppurativa's patients

Anne-Claire Fougerousse, Pierre André bécherel, pour le GEM ResoVerneuil

Impact of surgery & hidradenitis suppurativa: results of a prospective French multicenter study.

Anne-Cécile EZANNO , Anne-Claire Fougerousse, Manuela Perez , Pierre-André Becherel , Juliette Delaunay ; Christelle Perat , Philippe Guillem and GEM RésoVerneuil

PROFILE OF PATIENTS OPERATED FOR HIDRADENITIS SUPPURATIVA IN FRANCE IN 2021

Anne-Cécile EZANNO , Anne-Claire Fougerousse, Pierre-André Becherel, Philippe Guillem and GEM RésoVerneuil

SURGERY IN HIDRADENITIS SUPPURATIVA THROUGH THE PRISM OF PUBLISHED GUIDELINES

Anne Cecile Ezanno, Anne-Claire Fougerousse, Pierre-André Becherel, François Maccari, Ziad Reguiai, Philippe Guillem, on behalf of the GEM Réso Verneuil

HS IN PATIENTS WITH PILONIDAL SINUS DISEASE: DEVELOPMENT AND INTERNAL VALIDATION OF A RISK CALCULATOR

Farida Benhadou, Axel P. Villani, Virginie Vlaeminck-Guillem, Philippe Guillem

INTRAFAMILY CONCEALING FOR HIDRADENITIS SUPPURATIVA: WHAT CAN WE LEARN FROM INTRAFAMILY VARIABILITY ?

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Posters

P0027: Antibiotic treatment for hidradenitis suppurativa in France: a practice survey

ANTIBIOTIC TREATMENT FOR HIDRADENITIS SUPPURATIVA IN FRANCE: A PRACTICE SURVEY

Anne-Claire Fougerousse, François Maccari, Philippe Guillem, Ziad Reguiai, for the GEM ResoVerneuil

INTRODUCTION

Although hidradenitis suppurativa (HS) is not primarily an infectious disease, antibiotics (AB) are widely used to treat this pathology with limited evidence. The choice of the AB is based on small randomized controlled trials and on open case-series. French guidelines for HS management have been published in 2019. We sought to describe the practice regarding AB prescriptions for HS in France.

MATERIAL AND METHODS

Practice survey in the French physicians network "ResoVerneuil" (278 members including dermatologists, surgeons, gastroenterologists) to identify the antibiotic strategy used in daily life for the treatment of HS according to the Hurley stage. Online questionnaire was sent to all members between 4th of January and 14th of February 2021. For each Hurley stage, the physician was asked whether he uses AB to treat HS's flares and/or as background therapy and when appropriate which AB (several answers possible for each Hurley stage) and the length of the prescription.

RESULTS

108 physicians answered the survey, with 101 analyzable answers. 37.6% were hospital based, 34.6% had a private practice and 27.8% a mixed practice, 13.8% had a dedicated consultation for HS. 63 physicians reported to see < 5 patients with HS per month, 29 5 to 15 patients and 9 > 15 patients. AB prescription according to Hurley stage is presented for flares and for background therapy in tables.

Antibiotics for flares	HS Hurley 1, <4 flares/year	HS Hurley 1, >4 flares/year	HS Hurley 2	HS Hurley 3
- Yes	90%	92.9%	90%	83.3%
- Type of antibiotic used	Amoxicillin-clavulanic acid 85,7% Pristinamycin 49,5% Doxycyclin 2,2% Rifampicin-clindamycin 2,2% Clindamycin 1,1% Pristinamycin-metronidazole 1,1% Azithromycin 1,1%	Amoxicillin-clavulanic acid 85,9% Pristinamycin 44,6% Doxycyclin 5,4% Rifampicin-clindamycin 2,2% Clindamycin 1,1% Pristinamycin-metronidazole 1,1% Azithromycin 1,1% Metronidazole 1,1%	Amoxicillin-clavulanic acid 79,3% Pristinamycin 41,5% Ceftriaxone-metronidazole 3,7% Rifampicin-clindamycin 2,4% Doxycyclin 1,2% Ceftriaxone 1,2% Clindamycin-ofloxacine 1,2% Clindamycin – moxifloxacine 1,2%	Amoxicillin-clavulanic acid 72% Pristinamycin 41,3% Ceftriaxone-metronidazole 6,7% Rifampicin-clindamycin 4% Clindamycin-ofloxacine 2,7% Ertapenem 2,7% Clindamycin – moxifloxacine 1,3% Ciprofloxacine 1,3% Metronidazole 1,3% Clindamycin-moxifloxacine-metronidazole 1,3% Tazocilline 1,3% Ceftriaxone 1,3%

Background antibiotic therapy	HS Hurley 1, <4 flares/year	HS Hurley 1, >4 flares/year	HS Hurley 2	HS Hurley 3
- Yes	29.7%	75.6%	86.8%	80%
- Type of antibiotic used	Cyclins 100% Sulfamethoxazole-trimethoprim 6,7% Rifampicin-clindamycin 6,7% Topical clindamycin 3,3%	Cyclins 100% Sulfamethoxazole-trimethoprim 20% Rifampicin-clindamycin 9,3% Topical clindamycin 5,3% Clindamycin-ofloxacine 2,7% Pristinamycin-métronidazole 2,7% Ceftriaxone-metronidazole 2,7% Clindamycin-levofloxacine 1,3% Rifampicin- moxifloxacine-metronidazole 1,3% Azithromycin 1,3%	Cyclins 83,5% Rifampicin-clindamycin 27,8% Sulfamethoxazole-trimethoprim 26,6% Clindamycin-ofloxacine 10,1% Topical clindamycin 8,8% Clindamycin-levofloxacine 6,3% Rifampicin- moxifloxacine-metronidazole 6,3% Azithromycin 6,3% Pristinamycin-métronidazole 3,8% Ceftriaxone-metronidazole 2,5%	Cyclins 68% Rifampicin-clindamycin 31,4% Sulfamethoxazole-trimethoprim 31,9% Ceftriaxone-metronidazole 18% Clindamycin-ofloxacine 13,8% Rifampicin- moxifloxacine-metronidazole 13,9% Clindamycin-levofloxacine 12,5% Topical clindamycin 5,5% Azithromycin 4,2% Pristinamycin-métronidazole 2,8% Ertapenem 4,2%
- Length of prescription (months)	< 3 : 0% 3 -6 : 76,7% >6 : 23,3%	< 3 : 5,3% 3 -6 : 73,3% >6 : 21,4%	< 3 : 7,6% 3 -6 : 69,6% >6 : 22,8%	< 3 : 13,9% 3 -6 : 56,9% >6 : 29,2%

CONCLUSION

A vast majority of physicians prescribe AB for flares whatever the Hurley stage is, mostly amoxicillin-clavulanic acid and pristinamycin, in accordance to the French recommendations. Background AB therapy is prescribed by about 80% of physicians for patients with HS Hurley 2 and 3 and for those with Hurley 1 with ≥ 4 flares/year. 30% of physicians although prescribe background AB therapy for patients with Hurley 1 HS with < 4 flares year, which is not proposed in French recommendations. Background AB used are mostly cyclins, sulfamethoxazole-trimetoprim and combination of ceftriaxone and metronidazole (for Hurley 3 stages). Several other AB are used as combination of rifampicin and clindamycin (as proposed in European recommendations for the treatment of HS), combination of clindamycin and quinolones, azithromycin .... Combination of clindamycin and levofloxacine proposed in French recommendations as attack treatment in Hurley 3 stages is very little used in practice. Length of combination of AB exceed 3 months in 80% of cases, contrary to recommendations. Physicians seeing more than 15 patients with HS per month were more likely to respect French recommendations. There was no difference in AB pattern prescription according to the existence of a dedicated consultation for HS.
Limits are the absence of question about the impact of the French recommendations on the habits of AB prescriptions, the impossibility to determinate exactly the length of each type of background AB.

This survey underlines the heterogeneity in AB prescription for HS in France particularly as background therapy, and the high rate of long prescription of combination of AB. Studies with better level of evidence are needed in order to improve the use of AB in HS and to clarify their place in the management of HS (monotherapy, combination with biologics and surgery...).

P0045: Successfull treatment with high dosage infliximab after failure of IL17 inhibitors: a series of 12 hidradenitis suppurativa's patients

SUCESSFULL TREATMENT WITH HIGH DOSAGE INLIXIMAB AFTER FAILURE OF IL17 INHIBITORS : A SERIES OF 12 HIDRADENITIS SUPPURATIVA'S PATIENTS

Anne-Claire Fougerousse, Pierre-André Bécherel, for the Gem ResoVerneuil

INTRODUCTION

Management of hidradenitis suppurativa (HS) is mainly based on antibiotics, biologics and surgery. Biologics are indicated in Hurley II and III HS after failure of antibiotics. Adalimumab is the only biologic approved for this indication and is reimbursed in France for HS since August 2021. Other biologics are frequently used as infliximab. IL17 and IL23 inhibitors are used with limited evidence but encouraging results from open label studies, case series, and results of phase 2 study for bimekizumab. Phase 3 randomized controlled trials are ongoing for secukinumab and bimekizumab

MATERIAL AND METHODS

We performed a retrospective charts review in the GEM ResoVerneuil including all patients with hidradenitis suppurativa responding to infliximab after failure of IL17 inhibitors

RESULTS

12 patients were included characteristics of which are detailed in Table 1. They were all treated with high dosage of infliximab (10 mg/kg every 4 weeks after induction period). Ten patients were overweight or obese; 9 were current or former smoker, 2 had a spondylo-arthritis, 4 had a family history of hidradenitis suppurativa. Ten patients previously received adalimumab discontinued for primary or secondary failure, one also received infliximab at the dosage of 5mg/kg. No side effect of infliximab was reported in this series.

	1	2	3	4	5	6	7	8	9	10	11	12
Age (years)	26	41	43	17	21	40	62	35	43	36	30	32
Gender	M	M	M	F	M	F	M	F	M	F	M	M
BMI (kg/m²)	23.6	21	26.5	28.4	30.8	29.7	32.1	25.9	26.4	25.7	27.7	32.4
Smoking (pack-year)	0	11	15	0	3	12	6	0	6	Cannabis	10	6
Age at diagnosis	21	35	20	12	19	34	31	18	22	31	16	17
Hurley stage	II	III	II	II	II	III	III	II	III	III	II	III
Affected areas	inguinal, buttocks, face	inguinal, buttocks, face, plaques	Axillary, inguino-perineal	Axillary inguinal breast	Axillary, inguinal, buttocks	Axillary, inguinal, buttocks, breast	Buttocks, inguinal, pubic	Inguino-perineal, breast	Axillary inguino-perineal	Axillary, breast	Follicular inguinal buttocks	Axillary, inguinal
IL 17 inhibitor	Bimekizumab	SECU	SECU	SECU	SECU EOW	SECU EOW	SECU	SECU	SECU	SECU EOW	SECU	SECU
Length (months)	4	17	4	4	4	4	11	4	4	9	3	9
Reason for discontinuation	Primary failure	Primary failure	Primary failure	Primary failure	Secondary failure	Primary failure	Secondary failure	Primary failure	Primary failure	Secondary failure	Primary failure	Secondary failure
Previous biologic	None	None	ADA	ADA	ADA	IFX 5mg/kg	ADA	ADA	ADA	ADA	ADA	ADA
Length (months)			4	7	3	12	7	12	9	9	3	10
Reason for discontinuation			Secondary failure	Primary failure	Primary failure	Secondary failure ADA 6 Secondary failure	Secondary failure	Secondary failure	Secondary failure	Secondary failure	Primary failure	Secondary failure
IFX 10mk/kg every 4 w												
Length (months)	6	11	8	4	10	6	9	7	12	10	11	9
Effectiveness	HiSCR 75	HiSCR 75	HiSCR 90	HiSCR 50	HiSCR 75	HiSCR 75	HiSCR 50	HiSCR 90	HiSCR 75	HiSCR 75	HiSCR 50	HiSCR 75

Table 1: Characteristics of patients

M: male, F: female, ADA: adalimumab at hidradenitis suppurativa's posology, IFX infliximab, SECU secukinumab at psoriasis's posology, EOW: maintenance dose 300mg every other week

CONCLUSION

Infliximab at the regimen of 10mg/kg every 4 weeks seems to be an effective therapeutic option in HS patients who failed IL17 inhibitors, with no safety signal

P0047: Retinoid use for the treatment of hidradenitis suppurativa: a practice survey

RETINOID USE FOR HIDRADENITIS SUPPURATIVA: A PRACTICE SURVEY

Anne-Claire Fougerousse, Germaine Gabison, for the GEM ResoVerneuil

INTRODUCTION

Treatment modalities for hidradenitis suppurativa (HS) include antibiotics, surgery, biologics, retinoids…. Use of retinoids is based on open case-series. International guidelines of HS management differ concerning the type of retinoids and the HS's phenotype in which they are recommended. We sought to describe the practice regarding retinoids prescriptions for HS in France.

MATERIAL AND METHODS

We performed a practice survey in the French physician's network "ResoVerneuil" (278 members including dermatologists, surgeons, gastroenterologists involved in the treatment of HS) to identify the strategy of use of retinoids in daily life for the treatment of HS. An online questionnaire was sent to all members between 11th February and 23rd March 2022. Physicians were asked whether they use retinoids for HS and when appropriate which retinoid, for which profile of patients (follicular or classical HS, Hurley stage, gender), and modalities of prescription. Reasons for not prescribing retinoid of HS were analyzed.

RESULTS

107 physicians answered the survey: 104 dermatologists, 2 surgeons and 1 proctologist. 35.5% were hospital based, 35.5% had a private practice and 29% a mixed practice; 24.3% had a dedicated consultation for HS. 61 physicians reported to see less than 5 patients with HS per month, 31 5 to 15 patients and 15 more than 15 patients. 41 declared not to prescribe retinoids for HS due to lack of eligible patient (29.3%), lack of experience (39%), or lack of evidence in HS (61%). Among the 66 physicians prescribing retinoids, 61 used them for follicular phenotype of HS and 12 for classical HS. They were used after failure of antibiotics (n=57) or as first line treatment (n=15); as monotherapy (n= 27), in combination with antibiotic for flares (n=42), with background antibiotics (n=14), with zinc (n=7), with surgery (n=20) or with biologics (n=9). 49 physicians declared to prescribe isotretinoin, 39 acitretin and 9 alitretinoin. Table 1 detail the modalities of use of the different retinoids. One third of physicians declared that French recommendations for HS treatment published in 2019 led to a modification of their retinoid use.

	Isotretinoin (n=49)	Alitretinoin (n=9)	Acitretin (n=39)
Prescription in			
Men	49 (100%)	7 (77.8%)	39 (100%)
Women of childbearing age	30 (61.2%)	7 (77.8%)	3 (7.7%)
Post menopausal women	29 (59.2%)	6 (66.7%)	28 (71.8%)
Dosage	<0.5mg/kg/d : 18 (36.7%) 0.5 to 1 mg/kg/d : 31 (63.3%)	10 mg : 1 (11.1%) 30 mg : 8 (88.9%)	<0.3 mg/kg/d : 9 (23.1%) 0.3 to 0.8 mg/kg/d : 29 (74.4%) > 0.8mg/kg/d : 1 (2.6%)
Prescription in HS			
Hurley 1	35 (71.4%)	5 (55.6%)	26 (66.7%)
Hurley 2	37 (75.5%)	8 (88.9%)	35 (89.7%)
Hurley 3	5 (10.2%)	3 (33.3%)	8 (20.5%)
Lenght of prescription			
3.to 6 months	20 (40.8%)	4 (44.4%)	7 (17.9%)
>6 months	29 (59.2%)	5 (55.6%)	32 (82%)

CONCLUSION

More than 60% of physicians prescribed retinoids for HS, mostly for follicular phenotype. Isotretinoin and acitretin were preferred to alitretinoin, although the French recommendations consider the three molecules with the same level of evidence for follicular HS after failure of antibiotics. Retinoids were used in combination with other therapeutic modalities, even if data of their use in combination are scarce. Acitretin was rarely used in women of childbearing age due to its prolonged teratogenic potential, isotretinoin and alitretinoin were preferred in this situation. Isotretinoin and alitretinoin were used as short-term treatment by around 40% of the physicians, contrary to acitretin, that was preferentially used as long-term treatment. About 40% of physicians do not use retinoids in HS, mainly because considering them non-efficient in this indication.
This study underlines the heterogeneity of use of retinoids in HS. Studies with better level of evidence are needed to clarify their place in HS therapeutic strategy.

P0085: Factors associated with major impairment of quality of life in patients with hidradenitis suppurativa;

P0085

Factors associated with major impairment of quality of life in patients with hidradenitis suppurativa

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INTRODUCTION

Hidradenitis suppurativa (HS) is a chronic inflammatory disease which presents as painful nodules that eventually develop into abscesses, draining sinuses, and scarring. These manifestations have physical and psychological impacts, which may impair patients' quality of life.

MATERIALS AND METHODS

A French multicenter prospective study included all patients who underwent wide excision for HS in 2021. Its aim was to evaluate the recurrence of HS one year after surgery. The following data were collected at baseline: demographic, Hurley stage, IHS4 score, DLQI, VAS pain (scale from 0 to 10), localization of surgery. From the baseline data, we looked for factors associated with a significant impact of HS on quality of life (determined as a DLQI >10).

RESULTATS

5 hospitals specialized in HS surgery included 100 patients (69% women).Patients characteristic's are summarised in table 1.
The sites to be operated were inguino-perineo-gluteal (49%), axillary (46%), both sites (2%) and other localizations (pilonidal disease or breast) in 3%.

In univariate analysis, there was a statistically significant correlation between DLQI and localization (p<0.01), history of wide excision (p=0.035), VAS pain (p<0.001), Hurley stage (p= 0.013) and IHS4 score (p<0.001). Duration of HS and receiving a medical treatment for HS had no impact on DLQI.
In multivariate analysis, there was a statistically significant difference between DLQI and location (all classes combined) (p = 0.015) with DLQI of the axillary group on average inferior of 4.02 to the one of the group inguino-perineo-gluteal (p <0.01)(table 2).

Table 1: Patient's characteristics

		N,%	Mean (sd)
Age			32.2 (8.80)
Smoking (yes)		69 (69%)	
BMI (kg/m2)			26.7 (5.84)
Age of onset of HS			20.1 (6.65)
DLQI			15.1 (6.54)
DLQI 11-20		55 (55%)	
DLQI>20 (yes)		22 (22%)	
VAS pain			4.90 (3.07)
Score IHS4			12.8 (8.84)
Hurley stage	1	8 (8%)	
	2	49 (49%)	
	3	43 (43%)	
Medical treatment (yes)		71 (71%)	

Table 2 Univariate and multivariate analysis

		Coefficients	P univariate analysis	P multivariate analysis
Localizations (1= both, 2= axillary=2, 3=inguino-perineo-gluteal; 4=other	2 vs 1	-4.02 [-6.91; -1.13]	<0.01	0.01
	3 vs 1	-0.786 [-3.55; 1.98]	0.57	-
	4 vs 1	-1.85 [-7.76; 4.06]	0.54	-
Time of evolution HS		0.0636 [0.0459; 0.173]	0.25	0.25
VAS pain		0.115 [0.0811; 0.148]	<0.001	<0.001
IHS4 Score		0.138 [0.00406; 0.273]	0.04	0.04
HURLEY stage	2 vs 1	-1.32 [-5.08; 2.43]	0.49	0.05
	3 vs 1	1.39 [-2.71; 5.49]	0.50	-
Medical treatment (1=yes)	1 vs 0	1.07 [-1.30; 3.45]	0.37	0.37

CONCLUSION

In our study, factor influencing the quality of life in HS patients were the pain and a inguinal-perineal location Duration of HS and receiving a medical treatment did not impact the quality of life of patients. Impact of surgery on quality of life will be further evaluated in this study.

P0087: Profile of patients operated for hidradenitis suppurativa in France in 2021;

Profile of patients operated for hidradenitis suppurativa in France in 2021

P0087

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INTRODUCTION

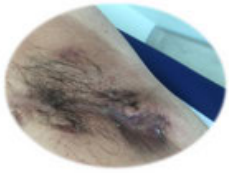
Hidradenitis suppurativa (HS) is a chronic inflammatory disease whose current medical management is based on antibiotics and biologics. However, surgery is the only curative treatment.

MATERIALS AND METHODS

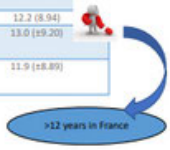
A French multicenter prospective study included all patients who underwent wide excision for HS in 2021. Its aim was to evaluate the recurrence of HS one year after surgery. The following data were collected at baseline: demographic, Hurley stage, IHS4 score, localization of surgery. We present here the characteristics of patients at baseline.

RESULTS

5 hospitals specialized in HS surgery included 100 patients (69% women). Patients characteristic's are summarised in table 1.
61% of the patients had already undergone surgery for HS with 25% patients had past history of wide excision. The others had had abscesses evacuated.
Mean evaluation of pain before surgery by Visual Analogic Scale(VAS) was 5± 3 and the mean Dermatology Life Quality Index (DLQI)was 15 ± 6.
The sites to be operated were inguino-perineo-gluteal (49%), axillary (46%), both sites (2%) and other localizations (pilonidal disease or breast) in 3%.
The delay between the onset of their disease and this surgical consultation was of 12.2±8.9 years.



		n,%	Mean (sd)
Age			32.2 (8.80)
Smoking (yes)		65 (65%)	
BMI (kg/m2)			26.7 (5.84)
Age of onset of HS			20.1 (6.65)
Past history of wide excision (yes)		25 (25%)	
Score IHS4			12.8 (8.84)
Hurley stage	1	8 (8%)	
	2	49 (49%)	
	3	43 (43%)	
Treatment (yes)		71 (71%)	
Type of Treatment	Antibiotherapy in case of flare	5 (7%)	
	background ant biotherapy	52 (73%)	
	Biologics	14(20%)	
Delay between onset of HS and Surgery consultation	For all		12.2 (8.94)
	In case of past history excision		13.0 (±9.20)
	No past history excision		11.9 (±8.89)



CONCLUSION

In this multicentric study patients who underwent surgery for HS were mostly women, with moderate to severe HS. 30% did not received any medical treatment before surgery, although medical management has been specified in French recommendation for HS in 2019. This underlines the need for a better collaboration between dermatologists and surgeons in HS management.

P1795: No impact of obesity of wound healing delay in hidradenitis suppurativ;

No impact of obesity of wound healing delay in hidradenitis suppurativa

P1795

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INTRODUCTION

Metabolic disorders including obesity and metabolic syndrome are the most common associated conditions observed in patients with hidradenitis suppurativa. Wide surgical excision is the only curative treatment. The aim of this study was to determine how obesity affects post-surgical outcomes in case of wild excision, especially regarding wound healing.

MATERIALS and METHODS

We performed a retrospective monocentric study. All patient who underwent wide excision for HS between 2016 and 2021 were identified in our hospital. Primary outcome was to assess the impact of overweight and obesity on healing time. Secondary objective was to investigate other data influencing directed wound healing in HS.

RESULTATS

161 patients (64% women) were included with 71 operated axillae, 73 inguino-perineal and 17 other localizations. Patients characteristic's are summarised in table.
We performed a multivariate analysis to determine the statistical association between healing time and BMI.
Multivariate analysis didn't show a statistically significant relationship between healing time and BMI *(p=0.92)*. Overweight with obesity with BMI>25kg/m² didn't influence the healing time either (p=0.065). **The only factors found in multivariate analysis were size (p=0.044) and smoking status (p<0.001).** The healing time of the group ≥30 cm³ was on average 32.3 days longer than the other group. The healing time of the non-smoking group was on average -33.3 days shorter. Limits of this study are the monocentric character and the limited number of patients with BMI > 30 (n=46; 29%).

Table 2: Multivariate analysis

		Coefficients	p
BMI		0.127 [-2.14; 2.46]	0.92
BMI ≥25 kg/m²	1 vs 0	7.36 [-15.5; 22.6]	0.43
SMOKING (no=0/yes=1)	1 vs 0	-33.4 [-60.8; -14.2]	<0.001
Localizations (1=inguinal-perineo-gluteal; 2= axillary and 3=other)	2 vs 1	22.4 [-8.02; 42.2]	0.036
	3 vs 1	-4.01 [-20.8; 11.5]	0.82
Wound size (< 30cm =1;and ≥30cm =2)	2 vs 1	20.7 [-1.03; 50.3]	0.044
Medical treatment (no=0; yes=1)	1 vs 0	2.95 [-19.7; 18.7]	0.78

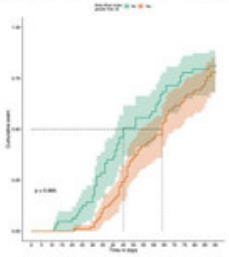

Table 1: Patient's characteristics

		n,%	Mean (sd)
Age		161	32.6 (11.1)
Sexe	Men	58 (36%)	
	Women	103 (64%)	
Smoking (yes)		106 (66%)	
BMI (kg/m²)			27.2 (5.72)
BMI≥ 25kg/m²		97 (60%)	
BMI ≥30kg/m²		46 (29%)	
Medical treatment (yes)		133 (83%)	
Hurley stage	1	4 (2.5%)	
	2	91 (57%)	
	3	66 (41%)	
Wound size (cm²)			60.3 (103)
Time of complete wound healing (days)			73.8 (59.5)

CONCLUSION

Obesity and even overweight do not seem to have an impact on the healing time after an excision for HS. Wound healing time is significantly related to the consumption of tobacco and the wound size.

P1705: Safety of biologics and apremilast for psoriasis in patients with history of cancer: a retrospective multicentric study

SAFETY OF BIOLOGICS AND APREMILAST FOR PSORIASIS PATIENTS WITH HISTORY OF CANCER/ A RETROSPECTIVE MULTICENTRIC STUDY

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INTRODUCTION

The use of biological therapies (BT) or apremilast (APR) is not contraindicated in patients with psoriasis and history of cancer. However recommendations propose to discuss the initiation of BT or APR case by case with cancer specialist

MATERIAL AND METHODS

Retrospective multicentric study between Janurary and June 2021 in the GEM Resopso to describe the safety of BT/APR in psoriatic patients with history of cancer. Inclusion criteria : initiation of BT or APR after the diagnosis of cancer. Exclusion criteria : basal cell carcinoma and cutaneous squamous cell carcinoma without high risk features. The followig data were collected : demographic, type of cancer, type of BT, evolution of cancer during treatment with BT/APR.

RESULTS

112 patients (female n= 62, median age 63 years) fullfiled the inclusion criteria whose characteristics are detailed in Table 1. 107 patients had one cancer, 5 two cancers. Cancer was localized (n=99), with lymph node metastases (n=16) or distant metastases (n=3). At the initiation of BT/APR cancer was considered in remission n=103 (>5 years n=53), stable n=4 or evolving n=4 ; cancer treatment was ongoing for 11 patients. 112 patients received 168 treatment courses : APR n=63, TNF inhibitor n=32, IL17 inhibitor n=28, ustekinumab n=22, IL23 inhibitor n=23.

4 patients presented an evolution of their cancer. A woman with colic adenocarcina in a palliative seting received APR during 1 month interrupted for digestive occlusion, she died 9 months later from cancer evolution. A woman with history of non invasive bladder cancer, relapses 12 months after endoscopic resection (she was treated by guselkumab (GUS) since 2 months). She underwent surgery and intravesical chemotherapy, with no recurrence after 15 months follow-up, GUS was stopped after 3 months due to primary failure. Two women with history of invasive ductal carcinoma HER+ treated by neoadjuvant chemotherapy and antiHER2 therapy, surgery, adjuvant radiotherapy and anti HER2 therapy received APR after the end of anti HER2 therapy. One patient had metastatic evolution after 1 year of APR, which was interrupted, leading to death 9 months later. The other patient presented a local recurrence after 3 years of APR, treated by neoadjuvant chemotherapy and anti HER2 therapy, surgery and adjuvant chemotherapy and anti HER2 therapy (whithout interruption of APR). No recurrence was observed with 3 months follow up.
For 5 patients the cancer was considered stable after BT/APR. 4 patients presented one or more cancer (cutaneous squamous cell carcinoma n=4, metastatic rectal squamous cell carcinoma n=1). 6 patients died : cancer evolution n=2, second cancer occured during BT n=1, COVID19 infection n=1, accidental death n=1, « failure to thrive syndrome» n=1.

CONCLUSION

To our knowledge, this is the largest study of psoriatic patients with history of cancer treated by BT/APR, with 3.6% of cancer progression. Limits of this study are the heterogeneity of the population, the relative short duration of BT/APR treatment. A recent meta-analysis did not found an over-risk of cancer recurrence in patient with chronic inflammatory diseases and history of cancer treated by TNFinhibitor. Special consideration in invasive ductal carcinoma HER+ might be necessary. Investigations on larger cohort should be conducted.

Type of psoriasis, N (%)	
Plaques	98 (87.5%)
Pustular palmo-plantar	5 (4.4%)
Erythrodermic	3 (2.7%)
Plaques palmo-plantar	2 (1.8%)
Guttate	1 (0.9%)
Folds	1(0.9%)
Pustular generalized	1 (0.9%)
Ungual	1 (0.9%)
Psoriatic arthritis, N(%)	24 (21.4%)
Previous systemic treatment, N(%)	
Phototherapy	70 (62.5%)
Methotrexate	82 (73.2%)
Cyclosporin	22 (19.6%)
Acitretine	42 (37.5%)
Other retinoids (etretinate, alitretine)	4 (3.6%)
Biotherapy	26 (23.2%)
None	9 (8%)
Type of cancer, N	
Breast	39
Melanoma	14
Prostate	12
Colorectal	8
Cervix	6
ENT	7
Urothelial	6
Cutaneous squamous carcinoma with high risk features	5
Kidney	5
Lung	4
Testis	3
Endometrium	2
Sarcoma	2
Thyroid	1
Thymoma	1
Hepatocellular carcinoma	1
Stomach	1
Delay between cancer and BT/PAR treatment (month)	
Median (min-max)	58 (0.7-347)
Duration of BT/APR treatment (month)	
Median (min-max)	18 [1-126]

Table 1. Characteristics of the patients

P1091: Alopecia areata in France: A practice survey

ALOPECIA AREATA IN FRANCE: A practice survey

Inés Zaraa[1], Anne-Claire Fougerousse[2], François Maccari[2,3], Pierre André Becherel[4], GEM RESO

Introduction:

- Alopecia areata (AA) is a nonscarring hair loss disorder. No therapeutics are currently available to prevent or cure AA
- The aim of our study was to evaluate the management of AA by dermatologists in France.

Materials and methods:

We performed a national online practice survey between November and December 2021.

Results:

- 146 dermatologists responded, 24% with hospital-based activity, 45% with private practice and 31% with both activities. Dermatologists with private practice see more patients with AA (15 patients on average per
versus 12 patients for hospital based dermatologists).
- Patients with AA represent 5% to 10% of all patients seen over a year for 14% for dermatologist with private practice versus, 3% for hospital-based dermatologists. The majority of dermatologists routinely look
history of familial AA and stressful event preceding the AA.
- Clinically, looking for a non-scarring scalp is the first element sought, followed by the examination of the hair-bearing areas and search for the rarefaction of the eyebrows, eyelashes, and beard.
- Thyroid laboratory tests were the most prescribed analysis (see figure 1).
- Regardless of activity mode, treatments were proposed for the progressive forms of AA (patients with extensive patches). Dermatologists with private activity, favor the treatment of small patches AA.
- Severity scales (SALT, DLQI) were little used to evaluate the severity of AA (3% for private practice -31% hospital based activity). The vast majority of dermatologists assess the severity according to the extent of A
other affected areas (95-100 %). More than 62% of dermatologists with hospital based or mixed activities take photos to follow the evolution of AA, versus 50 % of private dermatologist who don't.
- For all dermatologists, topical corticosteroids were the most prescribed treatments (87-97%) (see figure 2). In second and third intention, dermatologists with hospital-based activity, prefer IV bolus of corticoste
(77%) and intralesional infiltration of corticosteroids (77%). For dermatologist with mixed activity, intralesional corticosteroids (80%) and methotrexate associated with systemic corticosteroids (67%) were u
indicated. Finally topical minoxidil (77%) and intralesional corticosteroids (68%) were recommended by private dermatologists. UV therapy was used by 43%, 29% and 27% of dermatologist with hospital activities, p
and mixed respectively. Prescription of JAK inhibitors was reported by 5%, 26%, and 31% of dermatologists with private activities, hospital and mixed respectively.

Figure 1 : prescribed laboratory tests according to the type of activity

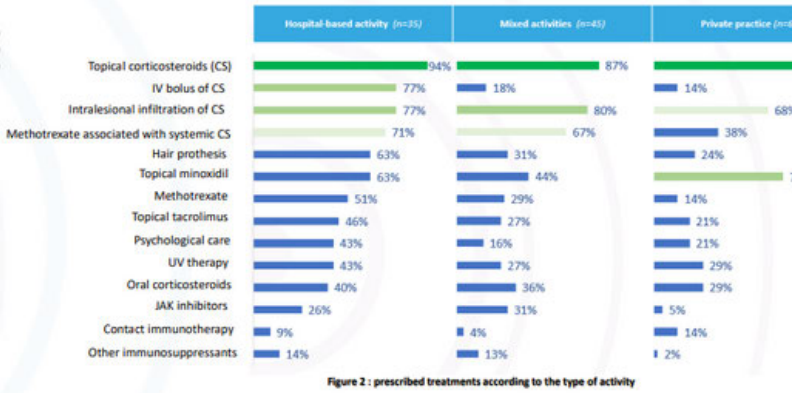


Figure 2 : prescribed treatments according to the type of activity

Discussion:

- Almost a third of dermatologists do not prescribe any analysis
- Topical corticosteroids are used by all dermatologists for alopecia areata. Concerning other treatments, prescribing patterns were different according to the type of practice (private practice versus hospital/mixed
- The majority of dermatologists do not assess and score before initiating treatment for AA.

JOURNÉES DERMATOLOGIQUES DE PARIS 2022

Posters

Utilisation des rétinoïdes dans la maladie de Verneuil : enquête de pratiques
Anne-Claire Fougerousse, Germaine Gabison, pour le GEM REsoVerneuil

Communications orales

Efficacité de l'infliximab fortes doses pour la maladie de Verneuil en cas d'échec aux anti IL17
Anne-Claire Fougerousse, Pierre André Bécherel pour le GEM REsoVerneuil

L'obésité influence t'elle la cicatrisation après une chirurgie d'excision de maladie de Verneuil?
Anne-Cécile Ezanno; Anne-Claire Fougerousse; Pierre-Louis Conan ; Joffrey Marchy

OMCCI

OBSERVATOIRE DES MALADIES CUTANÉES
CHRONIQUES INFLAMMATOIRES

PRESENTATION DE L'OBSERVATOIRE

Chers amis,

Reso et son Groupe d'Etude Multicentrique OMCCI (Observatoire des Maladies Cutanées Chroniques Inflammatoires) relève depuis deux ans un formidable défi : celui de suivre sur une durée de 4 ans plusieurs milliers de patients atteints des Dermatoses Inflammatoires Chroniques (DIC) les plus emblématiques que sont la Dermatite Atopique, le Psoriasis, l'Hidradénite suppurée et l'Urticaire chronique spontané.

Nous allons pouvoir ainsi évaluer, sur des cohortes conséquentes de patients, le fardeau de ces maladies, mais aussi et surtout l'évolution sur la durée de ce fardeau, par la prescription des thérapeutiques systémiques, biothérapies et JAKi, sans oublier les traitements systémiques conventionnels qui gardent certainement toute leur place dans notre arsenal thérapeutique.
Nous allons pouvoir également évaluer le handicap subi par les patients et l'impact des thérapeutiques de façon comparative entre les différentes DIC étudiées.

Nous constituons ainsi un groupe d'étude multicentique unique, fort à ce jour de 24 centres actifs (CHU, HIA, CHG, Cliniques et cabinets libéraux), qui nous ont progressivement rejoint depuis décembre 2020. Et ce sont une quarantaine d'investigateurs qui ont déjà inclus plus de 2200 patients, avec rigueur et enthousiasme!

Dans l'esprit de Reso qui est le nôtre depuis 2011, date de notre première étude multicentrique Resopsocar (publiée en 2013 dans le British journal of dermatology), notre Observatoire est proposé à chacun de nos membres, quelque soit leur exercice, hospitalier, mixte ou libéral. Les inclusions de nouveaux centres se feront jusqu'au 30 juin 2023.
Pour en parler plus avant et vous présenter l'OMCCI et ses premiers travaux scientifiques, nous vous donnons RDV le jeudi 01/12 à notre désormais traditionnelle soirée GEM des JDP.

Nous vous y attendons nombreux, et bien sûr dans une ambiance studieuse mais conviviale!

Amitiés à tous
François Maccari
Président de Reso

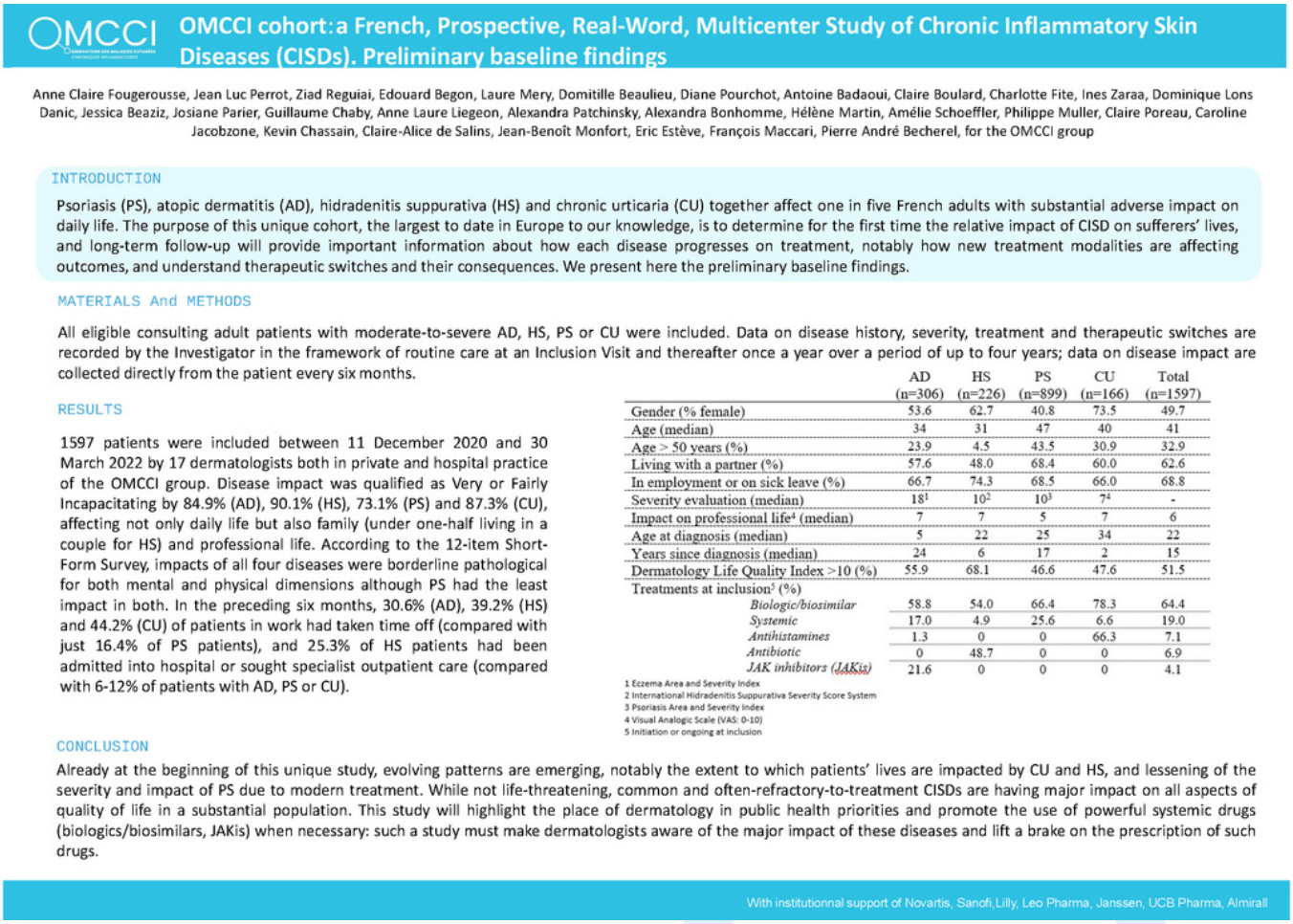
Communications

EADV 2022

POSTERS

OMCCI cohort: a French, Prospective, Real-Word, Multicenter Study of Chronic Inflammatory Skin Diseases (CISDs). Preliminary baseline findings

Anne Claire Fougerousse, Jean Luc Perrot, Ziad Reguiai, Edouard Begon, Laure Mery, Domitille Beaulieu, Diane Pourchot, Antoine Badaoui, Claire Boulard, Charlotte Fite, Ines Zaraa, Dominique Lons Danic, Jessica Beaziz, Josiane Parier, Guillaume Chaby, Anne Laure Liegeon, Alexandra Patchinsky, Alexandra Bonhomme, Hélène Martin, Amélie Schoeffler, Philippe Muller, Claire Poreau, Caroline Jacobzone, Kevin Chassain, Claire-Alice de Salins, Jean-Benoît Monfort, Eric Estève, François Maccari, Pierre André Becherel, for the OMCCI group



OMCCI

OMCCI cohort: a French, Prospective, Real-Word, Multicenter Study of Chronic Inflammatory Skin Diseases (CISDs). Preliminary baseline findings

Anne Claire Fougerousse, Jean Luc Perrot, Ziad Reguiai, Edouard Begon, Laure Mery, Domitille Beaulieu, Diane Pourchot, Antoine Badaoui, Claire Boulard, Charlotte Fite, Ines Zaraa, Dominique Lons Danic, Jessica Beaziz, Josiane Parier, Guillaume Chaby, Anne Laure Liegeon, Alexandra Patchinsky, Alexandra Bonhomme, Hélène Martin, Amélie Schoeffler, Philippe Muller, Claire Poreau, Caroline Jacobzone, Kevin Chassain, Claire-Alice de Salins, Jean-Benoît Monfort, Eric Estève, François Maccari, Pierre André Becherel, for the OMCCI group

INTRODUCTION

Psoriasis (PS), atopic dermatitis (AD), hidradenitis suppurativa (HS) and chronic urticaria (CU) together affect one in five French adults with substantial adverse impact on daily life. The purpose of this unique cohort, the largest to date in Europe to our knowledge, is to determine for the first time the relative impact of CISD on sufferers' lives, and long-term follow-up will provide important information about how each disease progresses on treatment, notably how new treatment modalities are affecting outcomes, and understand therapeutic switches and their consequences. We present here the preliminary baseline findings.

MATERIALS And METHODS

All eligible consulting adult patients with moderate-to-severe AD, HS, PS or CU were included. Data on disease history, severity, treatment and therapeutic switches are recorded by the Investigator in the framework of routine care at an Inclusion Visit and thereafter once a year over a period of up to four years; data on disease impact are collected directly from the patient every six months.

RESULTS

1597 patients were included between 11 December 2020 and 30 March 2022 by 17 dermatologists both in private and hospital practice of the OMCCI group. Disease impact was qualified as Very or Fairly Incapacitating by 84.9% (AD), 90.1% (HS), 73.1% (PS) and 87.3% (CU), affecting not only daily life but also family (under one-half living in a couple for HS) and professional life. According to the 12-item Short-Form Survey, impacts of all four diseases were borderline pathological for both mental and physical dimensions although PS had the least impact in both. In the preceding six months, 30.6% (AD), 39.2% (HS) and 44.2% (CU) of patients in work had taken time off (compared with just 16.4% of PS patients), and 25.3% of HS patients had been admitted into hospital or sought specialist outpatient care (compared with 6-12% of patients with AD, PS or CU).

	AD (n=306)	HS (n=226)	PS (n=899)	CU (n=166)	Total (n=1597)
Gender (% female)	53.6	62.7	40.8	73.5	49.7
Age (median)	34	31	47	40	41
Age > 50 years (%)	23.9	4.5	43.5	30.9	32.9
Living with a partner (%)	57.6	48.0	68.4	60.0	62.6
In employment or on sick leave (%)	66.7	74.3	68.5	66.0	68.8
Severity evaluation (median)	18[1]	10[2]	10[3]	7[4]	-
Impact on professional life[4] (median)	7	7	5	7	6
Age at diagnosis (median)	5	22	25	34	22
Years since diagnosis (median)	24	6	17	2	15
Dermatology Life Quality Index >10 (%)	55.9	68.1	46.6	47.6	51.5
Treatments at inclusion[5] (%)					
Biologic/biosimilar	58.8	54.0	66.4	78.3	64.4
Systemic	17.0	4.9	25.6	6.6	19.0
Antihistamines	1.3	0	0	66.3	7.1
Antibiotic	0	48.7	0	0	6.9
JAK inhibitors (JAKis)	21.6	0	0	0	4.1

1 Eczema Area and Severity Index
2 International Hidradenitis Suppurativa Severity Score System
3 Psoriasis Area and Severity Index
4 Visual Analogic Scale (VAS: 0-10)
5 Initiation or ongoing at inclusion

CONCLUSION

Already at the beginning of this unique study, evolving patterns are emerging, notably the extent to which patients' lives are impacted by CU and HS, and lessening of the severity and impact of PS due to modern treatment. While not life-threatening, common and often-refractory-to-treatment CISDs are having major impact on all aspects of quality of life in a substantial population. This study will highlight the place of dermatology in public health priorities and promote the use of powerful systemic drugs (biologics/biosimilars, JAKis) when necessary: such a study must make dermatologists aware of the major impact of these diseases and lift a brake on the prescription of such drugs.

With institutionnal support of Novartis, Sanofi,Lilly, Leo Pharma, Janssen, UCB Pharma, Almirall

Communication orale

Comparison of patient's profile initiating anticytokines and JAK inhibitors for atopic dermatitis in the OMCCI cohort

Voir la communication orale :

https://www.reso-dermatologie.fr/wp-content/uploads/2022/10/COv2.pdf

Etude française prospective multicentrique observationnelle des dermatoses inflammatoires chroniques: résultats préliminaires à l'inclusion

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OMCCI Observatoire des Maladies Cutanées Chroniques Inflammatoires

ETUDE FRANCAISE PROSPECTIVE MULTICENTRIQUE OBSERVATIONNELLE DES DERMATOSES INFLAMMATOIRES CHRONIQUES: RESULTATS PRELIMINAIRES A L'INCLUSION

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INTRODUCTION:

Le psoriasis, la dermatite atopique, l'hidradénite suppurée ou l'urticaire chronique touchent un français adulte sur cinq avec un impact important sur leur qualité de vie.

MATERIEL ET METHODES:

OMCCI= étude prospective multicentrique (centres hospitaliers et dermatologues libéraux) observationnelle incluant des patients adultes avec un psoriasis, une dermatite atopique, une hidradénite suppurée ou une urticaire chronique modérés à sévères à partir de décembre 2020.
Les données concernant la sévérité, les traitements (historique des 6 derniers mois à l'inclusion puis modifications thérapeutiques) étaient colligées par l'investigateur à la visite d'inclusion puis de façon annuelle pendant 4 ans. Les patients remplissaient des questionnaires évaluant l'impact de leur maladie à l'inclusion puis tous les 6 mois. Nous présentons ici les résultats préliminaires à l'inclusion.

RESULTATS :

1597 patients étaient inclus entre le 11 décembre 2020 et le 30 mars 2022 par 17 centres. Leurs caractéristiques à l'inclusion sont précisées dans le tableau 1.
L'impact de la maladie était évalué comme assez ou très important par 84.9% (dermatite atopique), 90.1% (hidradénite suppurée), 73.1% (psoriasis) et 87.3% (urticaire chronique) des patients, affectant non seulement la vie quotidienne mais aussi familiale (<50% des patients vivant en couple pour l'hidradénite suppurée) et professionnelle.
Les patients atteints de dermatite atopique rapportaient un impact important sur le sommeil et le caractère chronophage des soins réalisés.
D'après le questionnaire SF-12, l'impact des 4 pathologies sur les dimensions physique et mentale était à la limite du pathologique. Le psoriasis était la pathologie avec le moins d'impact.
Dans les 6 mois précédant l'inclusion 30.6% (dermatite atopique), 39.2% (hidradénite suppurée) et 44.2% (urticaire chronique) des patients avaient été absents du travail (versus 16.4% des patients psoriasis).
25.3% des patients atteints d'hidradénite suppurée avaient été hospitalisés ou avaient du consulter (versus 6 à 12% des patients dermatite atopique, psoriasis ou urticaire chronique).

	Dermatite atopique (n=306)	Hidradénite suppurée (n=226)	Psoriasis (n=899)	Urticaire chronique (n=166)	Total (n=1597)
Genre féminin (%)	53.6	62.7	40.8	73.5	49.7
Age (médian)	34	31	47	40	41
Age>50 ans (%)	23.9	4.5	43.5	30.9	32.9
Vie en couple (%)	57.6	48	68.4	60	62.6
Travailleur actif ou en arrêt maladie (%)	66.7	74.3	68.5	66	68.8
Evaluation de la sévérité (médiane)	18[1]	10[2]	10[3]	7[4]	-
Impact sur la vie professionnelle[4]	7	7	5	7	6
Age au diagnostic (median)	5	22	25	34	22
Délai depuis le diagnostic (années, median)	24	6	17	2	15
DLQI>10 (%)	55.9	68.1	46.6	47.6	51.5
Traitement à l'inclusion[5] (%)					
• *Biothérapie*	58.8	54	66.4	78.3	64.4
• *Systémique*	17	4.9	25.6	6.6	19
• *Antihistaminique*	1.3	0	0	66.3	7.1
• *Antibiotique*	0	48.7	0	0	6.9
• *JAK inhibiteur*	21.6	0	0	0	4.1

[1]Eczema Area and Severity Index
[2]International Hidradenitis Suppurativa Severity Score System
[3]Psoriasis Area and Severity Index
[4]Echelle Visuelle Analogique (0 à 10)
[5]En cours ou initié à l'inclusion

Tableau 1: Caractéristiques des patients

DISCUSSION:

Les résultats préliminaires de cette étude ont confirmé l'impact important des dermatoses inflammatoires chroniques sur la vie des patients, en particulier celui des patients atteints de dermatite atopique, d'urticaire chronique et d'hidradénite suppurée, en contraste à celui moins important du psoriasis. En effet, près de la moitié des patients atteints d'urticaire chronique avaient du s'absenter du travail à cause de leur pathologie les 6 mois précédent l'inclusion. Les patients atteints d'hidradénite suppurée rapportaient un impact majeur en particulier sur leur vie professionnelle et sentimentale et ceux atteints de dermatite atopique un impact majeur sur le sommeil et un temps important lié aux soins. L'impact du psoriasis était moins important, probablement du fait de l'utilisation de traitements modernes depuis plus longtemps dans cette pathologie comme l'illustre le fait que 2/3 des patients psoriasiques étaient déjà sous traitement biologique à l'inclusion. Les données à long terme de cette étude permettront de mesurer l'impact de la prise en charge et en particulier des nouveaux traitements sur la qualité de vie des patients.

Avec le soutien institutionnel des laboratoires Novartis, Sanofi, Lilly, Leo Pharma, Janssen, UCB Pharma, Almirall

Comparaison du profil des patients initiant une biothérapie ou un JAK inhibiteur pour une dermatite atopique au sein d'une cohorte de patients avec une dermatite atopique modérée à sévère

AC. Fougerousse1; JL. Perrot2; Z. Reguiai3; E. Begon4; L. Mery Bossard5; D. Thomas Beaulieu5; D. Pourchot5; A. Badaoui6, 1; C. Boulard7; C. Fite8; I. Zaraa8; D. Lons Danic8; J. Beaziz8; J. Parier9; G. Chaby10; AL. Liegeon11; A. Patchinsky11; A. Bonhomme11; H. Martin11; A. Schoeffler11; P. Muller11; C. Poreaux12, 13; C. Jacobzone Leveque14; K. Chassain14; CA. De Salins14; JB. Monfort15; E. Esteve16; F. Maccari9; PA. Becherel17; Observatoire des Maladies Cutanées Chroniques Inflammatoires

COMPARAISON DU PROFIL DES PATIENTS INITIANT UNE BIOTHERAPIE OU UN JAK INHIBITEUR POUR UNE DERMATITE ATOPIQUE AU SEIN D'UNE COHORTE DE PATIENTS AVEC UNE DERMATITE ATOPIQUE MODEREE A SEVRE

AC Fougerousse[1], JL Perrot[2], Z Reguiai[3], E Begon[4], L Mery-Bossard[5], D Thomas-Beaulieu[5], D Pourchot[5], A Badaoui[6], C Boulard[7], C Fite[8], I Zaraa[8], D Lons Danic[8], J Beaziz[8], J Parier[9], G Chaby[10], AL Liegeon[11], A Patchinsky[11], A Bonhomme[11], H Martin[11], A Schoeffler[11], P Muller[11], C Poreaux[12,13], C Jacobzone-Leveque[14], K Chassain[14], CA De Salins[14], JB Monfort[15], E Esteve[16], F Maccari[9], PA Becherel[17], pour l'Observatoire des Maladies Cutanées Chroniques Inflammatoires

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INTRODUCTION

L'arsenal thérapeutique de la dermatite atopique (DA) a considérablement évolué ces dernières années. Les biothérapies (dupilumab and tralokinumab) et les inhibiteurs de JAK (baricitinib and upadacitinib) étaient disponibles en France pour les DA modérées à sévères (uniquement en accès précoce pour l'upadacitinib et le tralokinumab) en date de juin 2022.

MATERIEL ET METHODES:

OMCCI= étude prospective multicentrique (centres hospitaliers et dermatologues libéraux) observationnelle incluant des patients adultes avec un psoriasis, une dermatite atopique, une hidradénite suppurée ou une urticaire chronique modérés à sévères à partir de décembre 2020 (inclusions encore en cours), dont l'objectif est d'évaluer l'impact des dermatoses inflammatoires modérées à sévères sur la vie des patients.

Critères d'inclusion: patients atteints de DA débutant du dupilumab, du tralokinumab, du baracitinib ou de l'upadacitinib à l'inclusion.
Critères d'exclusion: traitement par biothérapie ou un JAK inhibiteur pour la DA les 6 mois précédents.
Objectif: comparer le profil des patients ayant initié une biothérapie ou un JAK inhibiteur pour une DA.

RESULTATS:

Parmi les 358 patients de la cohorte avec une DA modérée à sévère en date du 8 juin 2022, 206 remplissaient les critères d'inclusion (dupilumab n=151, baricitinib n=52, upadacitinib n=2, tralokinumab n=1).
Leur caractéristiques sont détaillées dans le tableau 1.

Les patients initiant une biothérapie avaient un plus grand nombre de zones du corps (parmi les 10 zones suivantes: visage cou et oreilles, cuir chevelu et lisière, dos et épaules, thorax et abdomen, fesses et cuisses, genoux et partie inférieure des jambes, pieds, région génitale et anus, bras et aisselles, mains) avec une dermatite atopique étendue: 3,5 ± 2,7 versus 2,3 ± 1,6 p=0,007.
Une atteinte tête et cou sévère isolée était plus fréquente chez les patients initiant un JAK inhibiteur (7.5%) qu'une biothérapie (2.6%).
La fréquence des arrêts maladie lors des 6 derniers mois en lien avec la DA était comparable dans les deux groupes (30.8%).
L'initiation de JAK inhibiteurs a diminué à partir de février 2022.

	Biothérapies (n=151)	JAKi (n=52)	
Age moyen (années)	43 ± 18.6	32 ± 13.7	**p<0.001**
Sexe féminin (%)	50.7	59.3	p=0,277
Statut marital : célibataire (%)	29.6	55.6	p=0,005
EASI moyen	21.4 ± 13.7	23.4 ± 13.6	p=0.279
DLQI moyen	13.3 ± 6.5	11.4 ± 5.6	p=0.054
Hospitalisation pour DA les 6 derniers mois (%)	7.9	3.7	p=0,364
Durée moyenne d'évolution de la DA (années)	27.6±19.1	20.9 ± 14.1	**p=0.026**
Impact moyen sur la vie quotidienne*	7.4 ± 1.9	7.3 ± 1.6	p=0.381
Impact moyen sur la vie familiale*	6.0 ± 2.8	5.3 ± 2.7	**p=0.049**
Impact moyen sur la vie professionnelles*	6.20± 3.3	7 ± 2.4	p=0.171
Score moyen de la dimension physique du SF12	47.21 ± 9.32	51.80 ± 5.95	**p=0.002**
Score moyen de la dimension mentale du SF12	35.58 ± 10.66	38.28 ± 10.83	p=0.123
Score de gêne	37.5±17.4	31.2±17.0	**p=0.023**

EASI : Eczema Activity and Severity Index (de 0 à 72)

DLQI : Dermatology Life Quality Index (de 0 à 30)

*Echelle visuelle analogique (de 0 à 10)

JAKi : JAK inhibiteur

Tableau 1: Caractéristiques des patients

CONCLUSION:

Les patients débutant une biothérapie étaient statistiquement plus âgés, avec une durée d'évolution plus longue de leur DA, étaient plus fréquemment en emploi ou en arrêt maladie, avaient une atteinte plus diffuse de la maladie et un impact sur la vie familiale et sur la santé physique (d'après le score SF 12) plus importants. Les JAK inhibiteurs étaient initiés chez des patients plus jeunes. Ceci peut être expliqué par le profil de tolérance des JAK inhibiteurs et aux précautions d'emploi chez les sujets plus âgés.
La révision de la tolérance des JAK inhibiteurs par les autorités de santé a eu un impact sur la cinétique de leur prescription.
Ces résultats préliminaires suggèrent deux profils de DA selon le type de traitement initié (biothérapie ou JAK inhibiteur). Ces tendances seront précisées avec les données définitives de la cohorte .

Avec le soutien institutionnel des laboratoires Novartis, Sanofi, Lilly, Leo Pharma, Janssen, UCB Pharma, Almirall

Profil des patients traités par biothérapie au sein d'une cohorte de patients atteints d'hidradénite suppurée modérée à sévère

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OMCCI
OBSERVATOIRE DES MALADIES CUTANÉES CHRONIQUES INFLAMMATOIRES

PROFIL DES PATIENTS TRAITES BIOTHERAPIE AU SEIN D'UNE COHORTE DE PATIENTS ATTEINTS D'HIDRADENITE SUPPUREE MODEREE A SEVERE

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INTRODUCTION:

La prise en charge de l'hidradénite suppurée repose sur les antibiotiques, la chirurgie et les biothérapies. Les recommandations françaises publiées en 2020, plaçaient l'adalimumab ou l'infliximab en cas d'échec aux antibiotiques pour les stades Hurley 2 et 3, ou d'emblée dans les formes associées à des maladies inflammatoires articulaires ou digestives. Cependant l'infliximab n'a pas l'AMM dans cette indication et l'adalimumab a obtenu le remboursement en France pour l'hidradénite suppurée seulement en août 2021.

MATERIEL ET METHODES:

OMCCI= étude prospective multicentrique (centres hospitaliers et dermatologues libéraux) observationnelle incluant des patients adultes avec un psoriasis, une dermatite atopique, une hidradénite suppurée ou une urticaire chronique modérés à sévères, ayant débuté en décembre 2020 (inclusions encore en cours).
Les données concernant la sévérité, les traitements (historique des 6 derniers mois à l'inclusion puis modifications thérapeutiques) étaient colligées par l'investigateur à la visite d'inclusion puis tous les ans pendant 4 ans. Les patients remplissaient des questionnaires évaluant l'impact de leur maladie à l'inclusion puis tous les 6 mois pendant 4 ans.

Dans cette analyse préliminaire, nous avons inclus les patients atteints d'hidradénite suppurée traités par biothérapie. L'objectif était de comparer le profil des patients selon qu'ils étaient déjà sous biothérapie à l'inclusion ou qu'une biothérapie était initiée à ce moment.

RESULTATS:

Parmi les 253 patients de la cohorte avec une hidradénite suppurée modérée à sévère en date du 8 juin 2022, 141 remplissaient les critères d'inclusion:
- déjà sous biothérapie à l'inclusion n=64 (adalimumab n=37, infliximab n= 14, secukinumab n=11, guselkumab n=1, bimekizumab n=1)
- initiation d'une biothérapie à l'inclusion n=77 (adalimumab n=67, infliximab n=7, secukinumab n=2, certolizumab pegol n=1).

Leur caractéristiques sont détaillées dans le tableau 1.

L'âge de début de la maladie, sa durée d'évolution et les absences au travail les 6 mois précédents du fait de l'hidradénite suppurée étaient comparables dans les deux groupes. Une atteinte isolée des zones axillaires était plus fréquente dans le groupe déjà sous biothérapie (14,3 vs 5,4%), alors que l'atteinte génitale isolée était plus fréquente dans le groupe initiant une biothérapie (20,3% vs 11,1%). Plus de patients du groupe déjà sous biothérapie rapportaient une amélioration de leur hidradénite suppurée les 6 derniers mois (25% vs 6.5%, p=0.018).

	Déjà sous biothérapie à l'inclusion (n=64)	Initiation d'une biothérapie à l'inclusion (n=77)	
Age moyen (années)	32.9 ± 9.2	33.7 ± 10.7	p=0.870
Sexe féminin (%)	60.9	61	p=0,990
Statut marital : célibataire (%)	43.5	40.3	p=0,340
IHS4 moyen	12.3±11.5	18.7±24.8	**p=0.048**
Classification de Hurley Hurley 1 Hurley 2 Hurley 3	 3.2 62.9 33.9	 5.6 67.6 26.0	p=0.586
DLQI moyen	14.8 ± 7.0	15.6 ± 6.7	p=0.140
Hospitalisation pour HS les 6 derniers mois (%)	34.4	19.5	**p=0,045**
Impact moyen sur la vie quotidienne*	6.1 ± 2.5	7.3 ± 1.9	**p=0.003**
Impact moyen sur la vie familiale*	5.4 ± 3.1	6.5 ± 2.8	**p=0.023**
Impact moyen sur la vie professionnelle*	6.3 ± 2.8	6.7 ± 2.7	p=0.269
Score moyen de la dimension physique du SF12	47.38 ± 8.49	43.05±11.06	p=0.689
Score moyen de la dimension mentale du SF12	35.77 ± 11.68	35.44 ± 10.47	p=0.952
Bonne observance au traitement (%)	51.6	44.9	**p=0.008**

IHS4 : International Hidradenitis Suppurativa Severity Score System, DLQI : Dermatology Life Quality Index (de 0 à 30), *Echelle visuelle analogique (de 0 à 10)

Tableau 1: Caractéristiques des patients à l'inclusion

CONCLUSION:

Les patients déjà sous biothérapie pour une hidradénite suppurée à l'inclusion avaient une maladie moins active selon l'IHS4 mais restant sévère (IHS4≥11), moins d'impact sur la vie quotidienne et familiale et avaient une meilleure observance au traitement que ceux initiant une biothérapie à l'inclusion.
Les patients déjà sous biothérapie à l'inclusion étaient plus fréquemment hospitalisés, ce qui peut s'expliquer par le taux plus élevé de patients sous infliximab dans ce groupe.
Cependant il n'y avait pas de différence sur le DLQI, le SF12, l'impact sur la vie professionnelle entre les 2 groupes.
Ceci suggère que l'hidradénite suppurée, même sous biothérapie lors des 6 derniers mois n'est pas suffisamenet contrôlée et garde un impact important sur la qualité de vie des patients.
Ces tendances seront précisées avec les données définitives de la cohorte.

Avec le soutien institutionnel des laboratoires Novartis, Sanofi, Lilly, Leo Pharma, Janssen, UCB Pharma, Almirall

PUBLICATIONS OMCCI EN COURS

Comparison of patient's profile initiating anticytokines and JAK inhibitors for atopic dermatitis in the OMCCI cohort

Soumis, en attente de retour

« L'ARTICLE À NE PAS MANQUER »

Effectiveness and safety of adalimumab, etanercept and ustekinumab for severe psoriasis in children under 12 years of age: a French-Italian daily practice cohort (BiPe Jr).
Zitouni J et al. Pediatric Drugs 2022 (24): 281-92.

La sous population des enfants de moins de 12 ans traités par biomédicament pour un psoriasis est sous représentée dans les cohortes rétrospectives et ne bénéficie pas d'analyse dédiée dans les essais thérapeutiques. L'objectif de l'étude BiPe Jr était d'évaluer le taux de maintien et la tolérance des biomédicaments chez les enfants de moins de 12 ans.

Cette étude multicentrique rétrospective franco-italienne a inclus 82 cas d'enfants, en moyenne âgés de 9.1 ± 0.6 ans, ayant reçu un total de 106 lignes de biomédicaments initiés avant l'âge de 12 ans (adalimumab (n=49), etanercept (n=37), ustekinumab (n=15), anakinra (n=2), infliximab (n=2) et secukinumab (n=1)), avec un suivi moyen de 15.6 mois par patient. Les deux-tiers des enfants avaient reçu de l'acitretine auparavant, 43.8 % du méthotrexate et 33.8 % de la ciclosporine. La forme psoriasis en plaques était la plus fréquente (n=49) suivie par la forme palmoplantaire (n=16) et la forme en goutte (n=9).

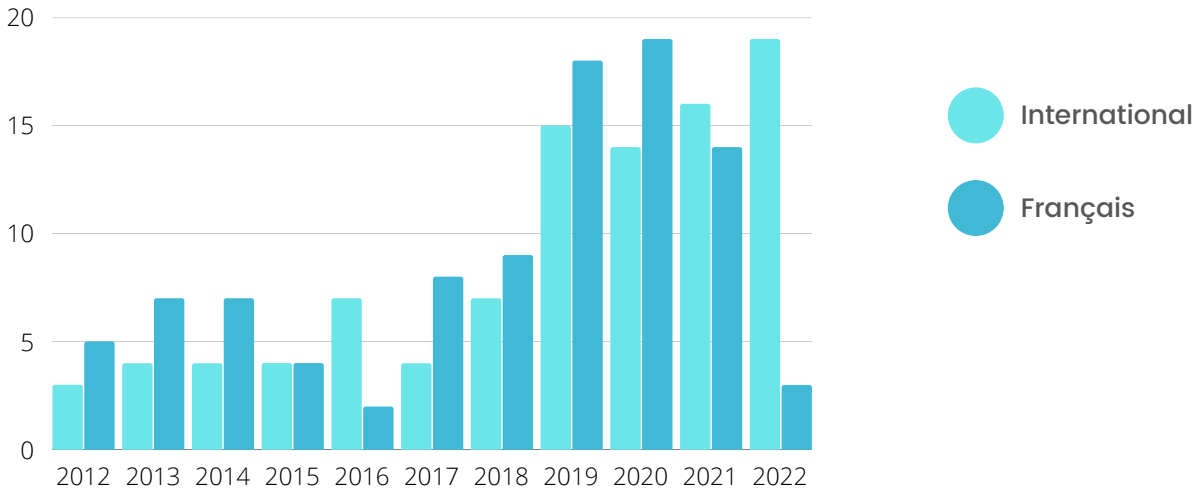
Le score PASI moyen 3 mois après l'initiation diminuait pour les principaux biomédicaments prescrits : 14.1 ± 9.4 à 4.1 ± 11.3 pour l'adalimumab, 14.9 ± 9.3 à 5.1 ± 4.0 pour l'etanercept et 11.6 ± 8.3 à 2.6 ± 2.2 pour l'ustekinumab. Une légère tendance à un meilleur maintien du traitement à 2 ans de l'ustekinumab et de l'adalimumab versus etanercept était observée.

52 enfants ont arrêté le biomédicament, principalement pour perte d'efficacité (n=21), observée chez deux fois plus d'enfants sous etanercept que sous adalimumab et ustekinumab (32.4 % vs < 15%), inefficacité primaire (n=9), rémission (n=14) ou effets indésirables (n=4). Sept évènements indésirables graves étaient rapportés : urticaire sévère, grippe, prise de 15 kg en 6 mois, insuffisance rénale aigue (sans lien probable), parotidite, infections récurrentes et bactériémie à Staphylococcus aureus.

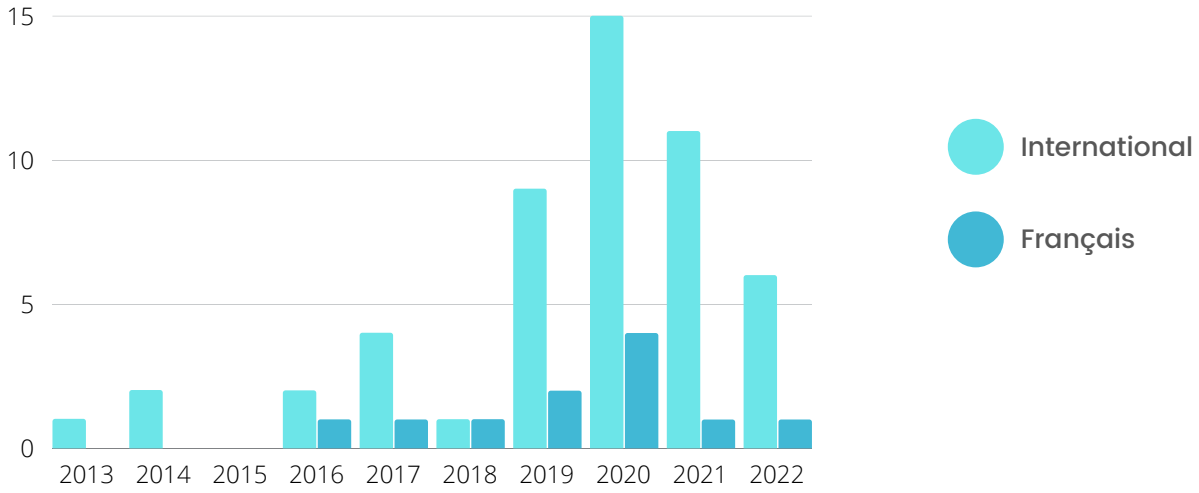
En conclusion des auteurs, cette étude au large effectif soutient l'efficacité et la bonne tolérance des biomédicaments chez les enfants de moins de 12 ans. Les effets indésirables principaux concernent des infections apparues sous anti-TNF rappelant la nécessité d'une vigilance accrue parmi cette population.

SYNTHÈSE DES COMMUNICATIONS ET ARTICLES AU SEIN DE RESO

PRÉSENTATIONS À DES CONGRÈS



PUBLICATIONS



GEM Reso

ILE-DE-FRANCE

52 CENTRES EXPERTS RÉPARTIS SUR TOUT LE TERRITOIRE !

DOM TOM