# For the GEM ResoVerneuil 4- Epidemiology Center- Military Health Service

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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/m<sup>2</sup> 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 cm<sup>3</sup> 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
Body Mass Index 🕂 No 🕂 Yes greater than 25

		Coefficients	þ
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

## 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.

## No impact of obesity of wound healing delay in hidradenitis suppurativa







## **Table 1: Patient's characteristics**

	n,%	Mean (sd)
	161	32.6 (11.1)
	58 (36%)	
า	103 (64%)	
	106 (66%)	
		27.2 (5.72)
	97 (60%)	
	46 (29%)	
	133 (83%)	
	4 (2.5%)	
	91 (57%)	
	66 (41%)	
		60.3 (103)
(days)		73.8 (59.5)

BMIBMI  $\geq$  301 vsBMI  $\geq$  301 vsSMOKING (no=0/yes=1)1 vsLocalizations2 vs(1=inguino-perineo-gluteal; 2= axillary and 3=other)3 vsWound size (< 30cm =1;and  $\geq$  30cm =2)2 vsMedical treatment (no=0; yes=1)1 vs

	Coefficients	р
	0.127 [-2.14; 2.46]	0.92
L vs 0	-5.01 [-34.0; 30.9]	0.76
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2 vs 1	22.4 [-8.02; 42.2]	0.036
3 vs 1	-4.01 [-20.8; 11.5]	0.82
2 vs 1	20.7 [-1.03; 50.3]	0.044
vs 0	2.95 [-19.7; 18.7]	0.78