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## INTRODUCTION

In the United States 1.8% of children are identifying as transgender. Hormone therapy is the mainstay of treatment for masculinisation or feminisation. Adverse effects including acne and alopecia are classically described with testosterone. Feminizing treatment with estrogens and antiandrogens are not usually associated to cutaneous side effects. Three cases of onset of hidradenitis suppurativa (HS) in patients under masculinising hormone therapy (MHT) are described in the literature. We report 6 new cases of HS, concerning both male and female hormones administration in transgender patients.

## OBSERVATIONS

A 23-year-old transgender man (assigned female at birth (AFAB)) developed HS Hurley 1 lesions and severe acne 6 months after the initiation of MHT (testosterone enantate). He was successfully treated with isotretinoin for acne. Doxycyclin was initiated without any HS flare after 8 months.

A 18-year-old transgender man (AFAB) had a personal history of HS Hurley 1C since the age of 13, partially controlled with cyclins. He presented no more HS flare after MHT at stable dosage (5 years of hindsight).

A 48-year-old transgender woman (assigned male at birth (AMAB)), with personal history of Crohn disease treated with sulfasalazine presented with history of mammary nodules and abscesses. HS lesions developed one year after initiation of feminizing hormone therapy (FHT) (cyproterone acetate). HS management required antibiotics, adalimumab and surgery. Despite all treatments, HS remained active with frequent flares.

A 17-year-old transgender woman (AMAB) had a personal history of HS Hurley 2 associated to a severe acne, treated with infliximab after failure of antibiotics and isotretinoin. FHT was started after infliximab. HS evolution remained severe even after optimisation of infliximab dose.

A 36-year-old transgender woman (AMAB), with history of severe acne developed HS Hurley 2 lesions, 1 year after initiation of FHT (cyproterone acetate, oestrogens). She was treated with cyclins and hair removal laser without efficacy, then with adalimumab with a good control maintained after 12 months.

A 32-year-old transgender woman (AMAB), developed HS Hurley 1C 8 months after FHT (cyproterone acetate, triptoreline). Treatment with hair removal laser, antibiotics was insufficient and adalimumab led to a good control maintained at 15 months.

None of our patients had familial history of HS, was obese or underwent modification of hormonal treatment.

## CONCLUSION

Impact of hormones in the pathophysiology of HS is still debated, but androgens are thought to play a role, with evidence mostly based on epidemiologic association. HS comorbidities with elevated androgens as polycystic ovarian syndrome or obesity are also associated with elevated level of proinflammatory cytokines. Oestrogen metabolites (16 $\alpha$  estrogens) are known to modulate local immune responses in other inflammatory diseases and could be mechanistically important in some HS patients.

In this series, we report 5 cases of transgender patients for whom modification of hormonal balance led to onset or exacerbation of HS. Most of our patients had no risk factor for HS. It is therefore possible that hormonal changes, whatever their direction (sudden excess of male or female hormones), might promote HS.