



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

## THE “WEIGHT” OF HIGH BODY MASS INDEX ON HIDRADENITIS SUPPURATIVA PATIENTS

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**Background:** The pathogenesis of hidradenitis suppurativa (HS) is not completely understood. Dysregulation of pilosebaceous unit and altered immune response have been recognized as crucial pathogenic factors for the onset of HS. Overweight-obesity is epidemiologically associated with HS and it may aggravate HS via increased skin-skin and skin-clothing friction.

**Objective:** To investigate the association and role of BMI in HS patients.

**Methods:** One-hundred-eight patients with mild, moderate, severe HS were included in this retrospective study. Demographic and clinical data of all patients were collected. Sixteen patients were treated with topical clindamycin, eighty-three with oral antibiotic therapy (mono or combined) and nine with adalimumab. Clinical and ultrasound evaluation were done at the treatment beginning and after 8 weeks of therapy. HiSCR was used, where applicable, to evaluate the treatment response. Statistical analysis was performed using ANOVA binomial and multinomial regression to evaluate the correlation among BMI and sex, age of onset, smoke, IHS4, Pain Vas, lesion type, presence of Power Doppler signal or DLQI and HiSCR achieving.

**Results:** In 108 patients, 68 female and 40 male, 33 were obese (BMI $\geq$ 30) and 29 overweight (BMI: 25.0–29.9). High BMI (>25) was correlated only with reduced therapeutic response assessed by HiSCR. Instead, no correlations were found among BMI and sex, age of onset, smoke, IHS4, Pain Vas, lesion type, presence of Power Doppler signal or DLQI.

**Conclusion:** Association between a BMI $\geq$ 25 with a worse response to treatments shows the importance of body weight, and suggests that obesity has a significant role in this disease and may worsen the course of HS. Obesity might influence HS pathogenesis in several ways, due to mechanical stress and increased levels of pro-inflammatory cytokines such as IL-1, IL-6, IL-8, TNF $\alpha$  and C-reactive protein. Dermatologists controlling patient's BMI can improve HS patients care.

