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For the GEM ResoVerneuil

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INTRODUCTION

Overweight and obesity are frequently observed in hidradenitis suppurativa (HS). The aim of this study was to analyse body mass index (BMI) effect on wound healing after curative surgery.

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. All patients had wound healing after excision. Primary outcome was to assess the impact of BMI on healing time. A description of the different sociodemographic and clinical variables of the study population was performed.

Logistic regression was used to explore the factors associated with healing. Kaplan-Meier survival analysis was used to observe the time from surgery to the end of healing of the most important wound. Cumulative event curves were plotted. All analyses were performed with R software version 4.0.3.

RESULTATS

160 patients (64% women) were included with 70 operated axillae, 73 inguino-perineal and 17 other localizations. Demographic characteristics are in table 1.

Analysis according to BMI

In univariate analysis, the duration of complete was not significantly longer in the obese (BMI>30 kg/m²) than nonobese group (BMI< 30 kg/m²) (75 ±51 days versus 72±62 days; p=0.278). Furthermore, the mean healing time was significantly longer in the overweigh group than the normal weight group (78±54 days versus 65±66 days; p=0.004).

Analysis according to healing time

We performed an analysis according to whether the healing time was less than or greater than 90 days (table 2) and a Kaplan-Meier survival analysis was used to observe the time from surgery to the end of healing of the most important wound. Results figure 1.

Figure 1: Kaplan-Meier survival analysis and healing time

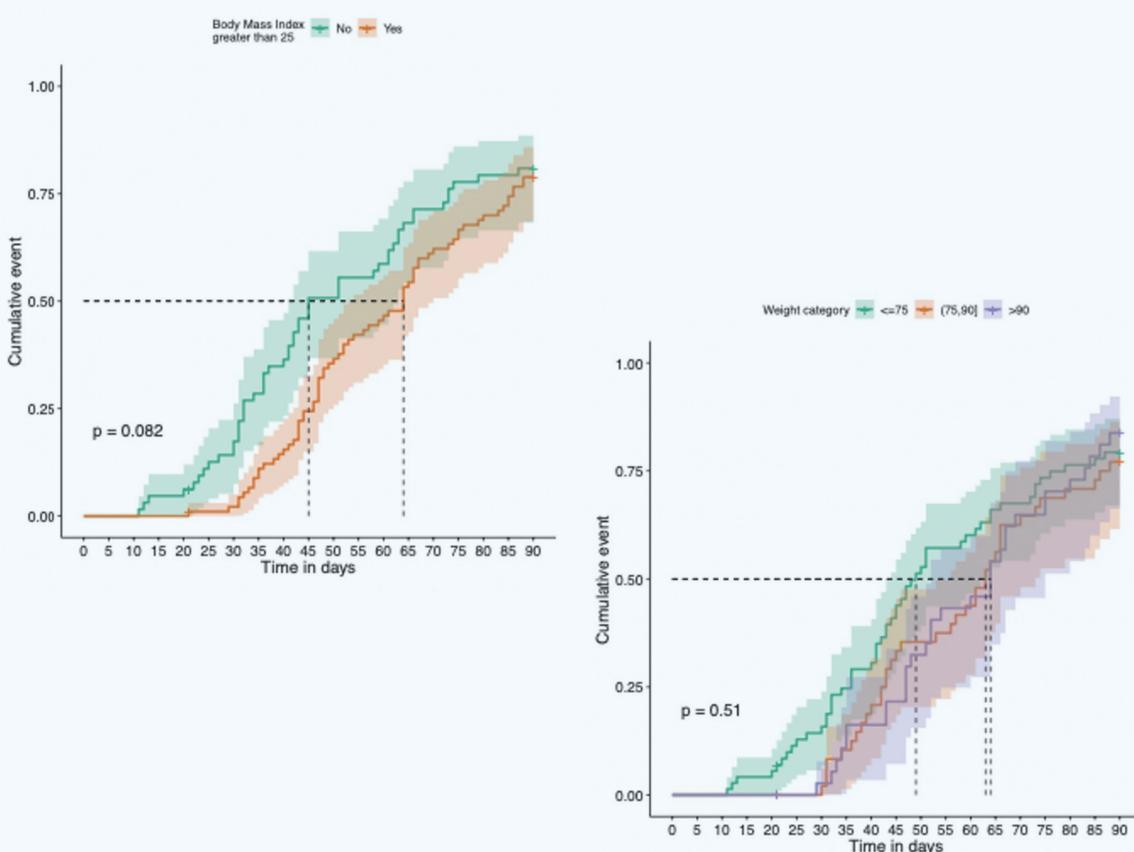


Table 1: Patient's characteristics

Variable	n or mean	%	IC
Sex (female/male)	103/57	64.4%-35.6	[56.6-72.1]/ [27.9-43.4]
Age (years)	32.5	±11.1	[30.8 - 34.3]
BMI (kg/m ²)	27.1	±5.7	[26.3 - 28]
<25	64	40%	[32.1-47.9]
(25,30)	51	31.9%	[24.3-39.4]
> 30	45	28.1%	[20.8-35.4]
Smoking (yes)	114	71.2%	[63.9-78.6]
Medical treatment (yes)	133	83.6%	[77.6-89.7]
Type of treatment			
Background antibiotherapy	93	69.9%	[61.8-78.1]
Antibiotherapy in case of flare	29	21.8%	[14.4-29.2]
Biologics	11	8.3%	[3.2-13.3]
Hurley stage			
1	4	2.5%	[0-5.3]
2	91	57.6%	[49.6-65.6]
3	63	39.9%	[31.9-47.8]
Wound size (cm ²) mean	55.2	±80	[42.7 - 67.7]
Time of complete wound healing (days) mean	74.6	±61.1	[64.9 - 84.4]

Table 2: Univariate analysis according healing time and BMI

Variable	Healing time <90n days		Healing time > 90 days		p-value
	n (%)	IC 95%	n (%)	IC 95%	
BMI ≥25					0.40
No	13 (20.3)	[9.7-31]	51 (79.7)	[69-90.3]	
Yes	25 (26)	[16.7-35.3]	71 (74)	[64.7-83.3]	
BMI > 30					0.26
No	30 (26.1)	[17.6-34.5]	85 (73.9)	[65.5-82.4]	
Yes	8 (17.8)	[5.5-30.1]	37 (82.2)	[69.9-94.5]	
Localization					<0.001
wide excision					
Other	10 (11.1)	[4.1-18.2]	80 (88.9)	[81.8-95.9]	
Axillary	28 (40)	[27.8-52.2]	42 (60)	[47.8-72.2]	
Wound size (cm ³) mean;SD	99.6 (120,3)	[60-139.1]	41.4 (56.4)	[31.3-51.5]	<0.001

CONCLUSION

Despite the deleterious effects of metabolic syndrome, overweight and obesity, our study did not find that BMI had an impact on healing time after HS excision.