

BMI EFFECT ON WOUND COMPLICATIONS FOLLOWING ABDOMINAL GYNECOLOGICAL SURGERIES. A CROSS-SECTIONAL SURVEY

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Introduction:

Postoperative wound complications, including surgical site infections (SSIs) and wound dehiscence, are among the most common adverse outcomes in high BMI patients following abdominal gynecological surgeries. Obesity, particularly central obesity, is known to impair wound healing due to poor tissue perfusion and increased rates of infection.

Objective:

To evaluate the impact of body mass index (BMI) on wound complications following abdominal gynaecological surgeries, identifying associated risk factors such as diabetes, intraoperative blood loss, and the presence of a pendulous abdomen as major risk factors .

Design:

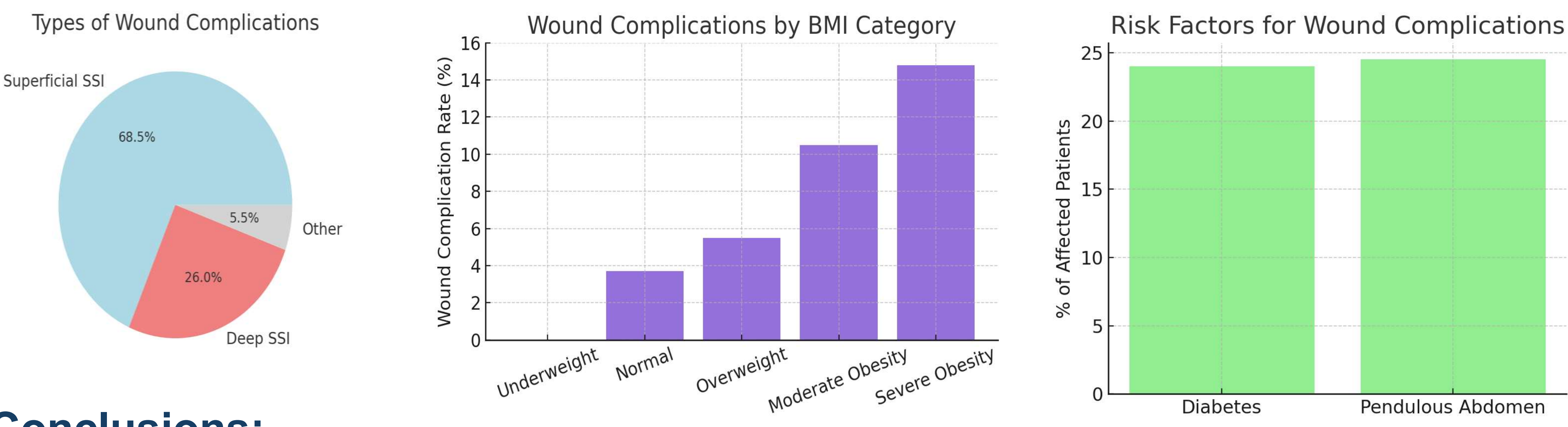
A cross-sectional study .

Method:

A total of 565 patients who underwent abdominal gynaecological surgeries at El-Shatby Maternity University Hospital, Alexandria, Egypt, over a period of 6 months were included. Patients were categorized based on their BMI into normal, overweight, and obese groups. Data regarding the incidence of wound complications, including SSIs, wound dehiscence, and the need for secondary suturing, were collected. Complications were classified into superficial and deep SSIs, with the outcomes evaluated through follow-up over a 30-day postoperative period. Statistical analysis was conducted using SPSS, with Chi-square tests applied at a 5% level of significance.

Results:

- Obese patients comprised 72.6% of the cohort, with moderate obesity being the most prevalent category. The overall wound complication rate was 9.5%, with superficial SSIs being the most common (68.5% of wound complications). Although 80% of wound complications occurred in obese patients, only 10.5% of obese individuals were affected, compared to 14.8% of normal-weight patients, likely due to uneven case distribution. Significant associations were found between wound complications and diabetes (24%) as well as the presence of a pendulous abdomen (24.5%). Severe wound complications requiring inpatient management correlated with intraoperative blood loss exceeding 2g/dL.



Conclusions:

- Obesity, particularly in the presence of diabetes and a pendulous abdomen, is a significant risk factor for postoperative wound complications following abdominal gynaecological surgeries. Strategies to mitigate surgical risks in obese patients should be considered to improve postoperative outcomes.