

## **POST-BARIATRIC PANNICULECTOMY: PRE-OPERATIVE BMI IMPACTS THE COMPLICATION PROFILE**

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**Background:** Morbid obesity continues to increase in the United States, which accounts for the increase in bariatric procedures performed. After these patients experience massive weight loss, many are left with a redundant pannus that poses physical limitations and psychosocial disturbances. An increasing proportion of bariatric patients are returning for body contouring procedures.

**Methods:** This is a retrospective cohort study set in a tertiary care center. We evaluated 128 post-bariatric panniculectomies performed over a three-year period. No patient was excluded. Peri-operative and post-operative data were collected through chart review. Descriptive and inferential analysis was performed using SPSS 11.0 (Mac ed. © Chicago, IL. 2005). Complications were defined as surgical site infection, seroma, hematoma, transfusion, skin breakdown/ necrosis, and need for re-exploration.

**Results:** 96% of patients were female. Mean age of the population was 41( $\pm$ 11). The average post-bariatric weight loss and pre-operative weight was 53( $\pm$ 16) kg and 78( $\pm$ 14) kg, respectively. This translates to a mean pre-operative BMI of 29( $\pm$ 5)kg/m<sup>2</sup>. Complication rates were the following: seroma 18%, hematoma 13%, surgical site infection 17%, transfusion 6%, skin breakdown/ necrosis 11%, and re-exploration 11%. 41% of patients experienced a complication. Using multivariate logistic regression, we evaluated age, pre-operative BMI, ASA class, specimen weight, and operative duration, and only pre-operative BMI was an independent predictor for developing a post-operative complication (OR 1.2 CI 1.02-1.24). As well, pre-operative BMI was associated with larger specimens ( $R^2=0.24$ ,  $p<0.01$ ).

**Conclusions:** Post-bariatric patients who have sustained significant weight loss report subject improvement after panniculectomy, and an increasing number of patients are returning for body contouring procedures. Even though this population has experienced significant weight loss, they are still at an increased risk for post-operative complications. Maximal reduction in BMI should be stressed to these patients in order to reduce their risk of complications following panniculectomy.