Is neck circumference an effective predictor of urinary incontinence in a bariatric population?

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Objective: To determine if there is a difference in neck circumference in women with urinary incontinence compared to women without urinary incontinence.

Methods: This study is a retrospective chart review derived from a sample of 234 female patients, all of whom had an initial visit to the Bariatric Clinic at Buffalo General Medical Center between the dates of March 2016 and October 2016. Their history and physical examination was reviewed to determine if they reported urinary incontinence. The women were then divided into two groups, those with urinary incontinence and those without. The patient’s initial neck circumference, age, and BMI were obtained from the chart. Only those women with full data sets were included in the statistical analysis (n=230). The T-test and ANCOVA were used for statistical analysis.

Results: No significant difference in neck circumference or BMI was observed between the cases and the controls. The mean neck circumference for the controls was 40.2±3.7 and 40.3±3.9 in the cases (p=0.791). The mean BMI was actually higher in the controls 47.3±9.1, while the mean BMI in the cases was 46.4±8.2 (p=0.768). The mean age of the cases was greater than the controls. When age was included as a confounding variable and ANCOVA was performed, there was minimal change in p values.

Conclusion: In the bariatric population, a larger neck circumference is not reliably associated with urinary incontinence.

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