Single incision pediatric endosurgery (SIPES) appendectomy--is obesity a contraindication?

INTRODUCTION: Single-incision pediatric endosurgery (SIPES) is gaining popularity and has been reported to be safe in acute (non-perforated) and perforated appendicitis. The feasibility of SIPES appendectomy in obese children is uncertain.

MATERIALS AND METHODS: After IRB approval, data were collected from a prospectively maintained SIPES appendectomy database for cases performed between April 2009 and March 2012. Patients were divided into obese and non-obese groups based on Center for Disease Control criteria. The surgical techniques, operative times, complications, conversion rates, and outcomes were recorded. Chi-square test and t-test were used for statistical analysis.

RESULTS: SIPES appendectomy was attempted in 500 children. There were 21% obese, and 37% were female with median age of 10.9 ± 3.8 years. Mean operative time, blood loss, requirement of additional trocars, and intraoperative complications in non-obese and obese children were not significantly different. Mean hospital stay (2.3 days in each group), post operative wound infections (3.3% vs. 4.8%, p=0.55, non-obese vs. obese), and intraabdominal abscesses (4.3% vs. 2.9%, p=0.77, non-obese vs. obese) were not significantly different.

CONCLUSION: SIPES appendectomy may be accomplished successfully and safely in obese children. Obesity did not appear to be associated with increased risk of complications and was not a contraindication for SIPES appendectomy.