http:// ijp.mums.ac.ir
Letter to Editor (Pages: 8863-8865)

The Impact of Obesity on Laparo-Endoscopic Single-Site (LESS) Appendectomy in Children

Mohamed Zouari[1], Ahmed Khalil Ben Abdallah[1], MahdiBen Dhaou[1], Riadh Mhiri[1]

[1]Department of Pediatric Surgery, Hedi-Chaker Hospital 3029 Sfax, Tunisia.

Abstract

Our study aimed to clarify the relationship between obesity and the risk of postoperative morbidity following LESS appendectomy. We performed a retrospective review of all patients who underwent LESS appendectomy from January 2013 to December 2016. LESS appendectomy was performed in 109 patients during the study period. Among these patients, 17 (15.6%) were obese. There were no significant differences in operative time, postoperative length of stay, surgical site infections, emergency department visits, or readmissions among nonobese and obese groups. In conclusion, obesity did not have any impact on the intraoperative course or short-term postoperative complications after LESS appendectomy.

Key Words: Appendectomy; Children, LESS, Obesity, Tunisia.

*Please cite this article as: Zouari M, Ben Abdallah AK, Ben Dhaou M, Mhiri R. The Impact of Obesity on Laparo-Endoscopic Single-Site (LESS) Appendectomy in Children. Int J Pediatr 2019; 7(1):8863-65. DOI: **10.22038/ijp.2018.34066.3006**

Corresponding Author:

Mohamed Zouari (M.D), Address for correspondence: Department of Pediatric Surgery. Hedi Chaker Hospital. 3029 Sfax. Tunisia.

Email: zouarimohamed.1982@yahoo.fr

Received date Feb23, 2016; Accepted date: Mar 22, 2016

Dear Editor-in-Chief,

Laparoendoscopic single-site surgery (LESS) is a new, minimally invasive technique that has been applied to several operations in pediatrics, including appendectomy (1-3). The main aim of this procedure is to reduce the trauma of surgical access and to improve cosmetic results, the surgical scar being concealed within the umbilicus. Over the past 5 decades, childhood overweight and obesity have increased throughout the world and have become major public health concerns (4). Obese children may pose technical difficulties during open surgical procedures. Additionally, the excess visceral adipose tissue seems to favor adverse intraoperative and postoperative outcomes in these patients, including surgical site infection and venous thromboembolism (5). However, there is a dearth of research about the clinical implications of obesity on outcomes after LESS appendectomy. Our study aimed to clarify the relationship between obesity and the risk of postoperative morbidity following LESS appendectomy. We performed a retrospective review of all patients who underwent LESS appendectomy from January 2013 to December 2016. The study was approved by the local Ethic Committee and informed consent was obtained from all patients. Appendectomy was performed using our homemade surgical glove port and rigid laparoscopic instruments (**Figure.1**). Specimen was extracted through a single umbilical incision sized between 1 and 1.5 cm (**Figure.2**). By the end of the intervention, fascial defect was closed using using 2-0 vicryl sutures. Patients were divided into non-obese and obese groups. Children with a body mass index (BMI) ≥ 95th percentile for their age and gender were considered obese. Short-term outcomes, including length of stay and post-operative complications, were compared between nonobese and obese children. Laparo-Endoscopic Single-Site appendectomy was performed in 109 patients during the study period. Among these patients, 17 (15.6%) were obese. There were no significant differences between the groups with respect to age at presentation, time to diagnosis, and intraoperative classification of appendicitis. There were no significant differences in operative time (38±8 min versus 40±10 min, P = 0.484), postoperative length of stay (1.9±2.28 days versus 1.8±2.67 days, P = 0.567), surgical site infections (5.4% versus 5.9%, P = 0.667), emergency department visits (8.7% versus 11.7%, P = 0.226), or readmissions (4.3% versus 5.9%, P = 0.627) among nonobese and obese groups. In our study, obesity did not have any impact on the intraoperative course or short-term postoperative complications after LESS appendectomy. This data suggests that the selection of the approach for acute appendicitis may be based on the surgical experience with the procedure, rather than on the patient body habitus.

Fig.1: Homemade device used in laparoendoscopic single-site procedures: surgical glove port.

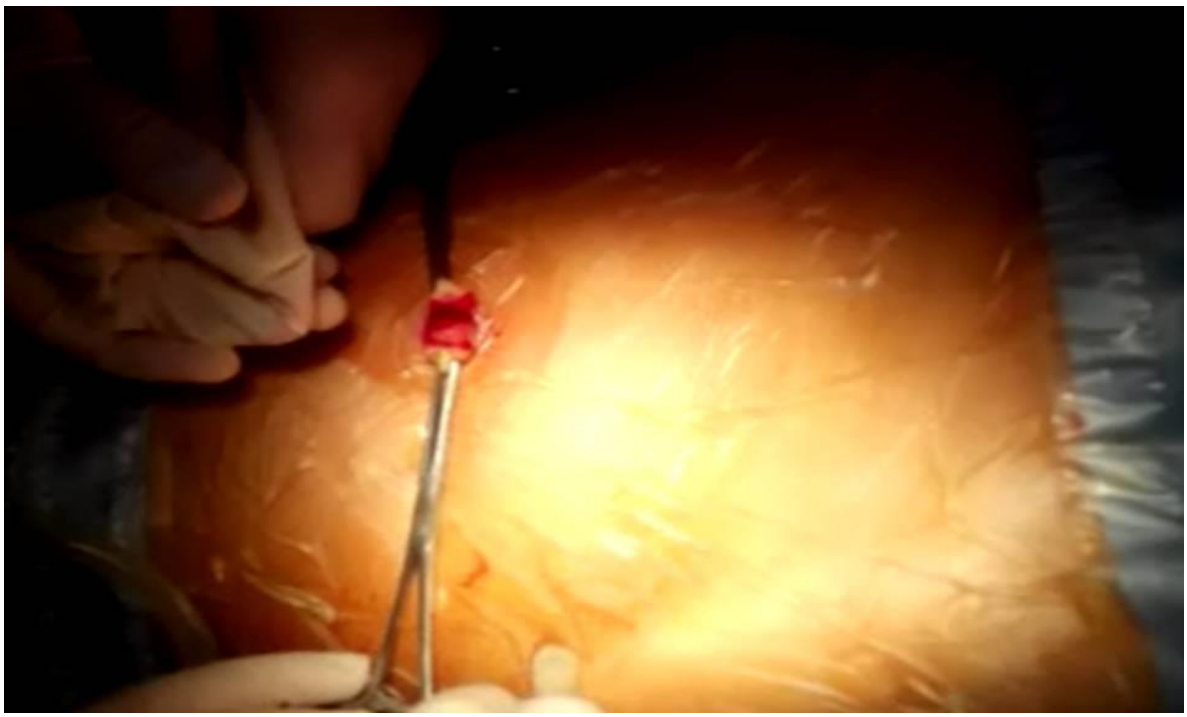

Fig.2: Umbilical incision.

REFERENCES

1. Markar SR, Blackburn S, Cobb R, Karthikesalingam A, Evans J, Kinross J,, et al. Laparoscopic versus open appendectomy for complicated and uncomplicated appendicitis in children. J Gastrointest Surg 2012; 16: 1993-2004.

2. Ben Dhaou M, Zouari M, Jallouli M, Mhiri R. Single-port laparoscopic ovarian transposition in an 11-year-old girl. Arch Pediatr 2015; 22(5):533-5.

3. Zouari M, Ben Dhaou M, Abid I, Ammar S, Zitouni H, Jallouli M, et al. Laparo-Endoscopic Single-Site (LESS) Cutaneous Ureterostomy in a Neonate. J Neonatal Surg 2017; 6: 86.

4. Atay Z, Bereket A. Current status on obesity in childhood and adolescence: Prevalence, etiology, co-morbidities and management. Obesity Medicine 2016; 3: 1-9.

5. Bamgbade OA, Rutter TW, Nafiu OO, Dorje P. Postoperative complications in obese and nonobese patients. World J Surg 2007; 31: 556-60.