

Early-Onset Port Site (Drain Site) Hernia in Pediatric Laparoscopy: A Case Series

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Abstract

Introduction: Laparoscopic procedures for children with urological problems are common under the present conditions. Laparoscopic surgery is associated with complications such as port site hernia that are not associated with open surgery. Drain site hernia is one variety of port site hernia.

Subjects and Methods: We did a retrospective analysis for the development of port site hernias among pediatric patients who underwent laparoscopic procedures. We also analyzed the various methods of prevention.

Results: Among the 148 children who underwent laparoscopic procedures, 5 (3.4%) had a port site hernia in the early postoperative period. All of them were drain site hernias with early presentations, and the content was omentum. Three patients had reduction under sedation. Two patients needed laparoscopy: one for the reduction into the preperitoneal space and the other for the nonreducible hernia due to omental edema. All the patients had an uneventful recovery.

Conclusions: Port site hernia is an uncommon complication in children undergoing laparoscopy. The drain site is the predominant location of port site hernia. Sedation during drain removal and judicious use of drain may help to decrease such occurrences.

Introduction

MINIMALLY INVASIVE TECHNIQUES like laparoscopic surgery are slowly replacing open procedures in a majority of urological conditions. However, laparoscopic surgery is not without complications. Port site hernia is one of the complications associated primarily with laparoscopy.¹ This situation can occur irrespective of the patient's age and has also been reported in the pediatric population.^{1,2} Hernia through the drain site has been reported with both open and laparoscopic procedures, in both adults and children.³ We present the retrospective analysis of our pediatric patients who underwent laparoscopic procedures, with regard to port site hernia. The possible strategies for prevention of such hernia are discussed.

Subjects and Methods

We reviewed the case records at our institution of all the children who underwent laparoscopic procedures over the past 15 years (1995–2011). All the patients had a 10-mm port inserted for the camera. Two or three secondary ports were inserted depending upon the procedure performed. The port

sites were not stretched at the time of port insertion. All ports that were 10 mm or larger had fascial closure. Fascial closure was not done for 5-mm port sites. Drains were placed through the 5-mm port site at the flank. A 12-French tube drain was used in all patients. The drain was removed when the drainage was less than 20 mL/day. The incidence of port site hernia, management, causes of herniation, and the preventive aspects were analyzed.

Results

Between 1995 and 2011, in total, 148 laparoscopic procedures were performed among the patients in the pediatric age group (Table 1). Ages ranged from 3 months to 15 years. Procedures included orchidopexy, orchidectomy, pyeloplasty, pyelolithotomy, nephrectomy, heminephrectomy, and ureteric reimplantation. Laparoscopic orchidopexy was the commonest surgery performed. All patients except those who underwent orchidopexy had a drain inserted. The drain was placed through one of the port sites (5 mm) in the flank.

Port site herniation occurred in 5 children. All these children were below the age of 5 years. Herniation occurred between postoperative Days 3 and 5, during drain removal.

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