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Mini Review

Postoperative Complications of Appendicitis in Children: A Mini Review

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Abstract

Appendicitis is one of the most common surgical problems seen in children with a life time risk of 7.7% [1]. Appendectomy is a relatively safe procedure with a mortality rate of 0.8/1000 for uncomplicated appendicitis [2]. Although the common usage of antibiotics have dramatically decreased morbidity and mortality, complications may still be observed in children following surgical intervention for appendicitis [3].

Keywords: *Appendicitis; Appendectomy*

Complication rates after appendectomy differ greatly with regard to the severity of the appendicitis. The incidence of postoperative complications depends on a lot of parameters some are linked to the case presentation, operative procedures and associated illness that predispose the patient for complications.

Complications are rarely seen after simple appendicitis but are more often seen in children with complicated appendicitis. Wound infection is the most common complication after appendectomy. With the worldwide usage of antibiotics, the rate of wound infection has fallen from 50% to less than 5%, even in complicated appendicitis. In a study it has been found that percentage of wound infection was less than 1% in uncomplicated cases to as high as 16% in complicated acute appendicitis [4]. It has also been found that the incidence of wound infection in laparoscopic appendectomy is lower than the open procedure [5].

Other complications of appendicitis include intra-abdominal abscess formation, wound dehiscence, postoperative intestinal obstruction, prolonged ileus and rarely enterocutaneous fistula. It has been reported that the postoperative risk of an intra-abdominal abscess is approximately 20% for children with perforated appendicitis, and the risk for children with simple appendicitis to develop an abscess is less than 0.8% [6]. Intraabdominal abscesses was previously thought to be more in laparoscopic approach but new meta-analysis data have proved that laparoscopic appendectomy is associated with less intraabdominal abscesses than the conventional technique [7]. Improved surgical skills and experience with laparoscopic surgery in addition to the revolution in the endoscopic instruments may be the reason for this change [8].

Tubal infertility and pylephlebitis may also be observed after surgical treatment for complicated appendicitis such as pelvic and subhepatic appendicitis, respectively. Other rare complications include prolonged ileus, postoperative adhesive intestinal obstruction, entero-cutaneous fistula, stump appendicitis. Sepsis and multisystem organ failure can occur in young children with a prolonged illness before definite diagnosis. As the antibiotics have markedly decreased the incidence of infectious complications, the mortality rate for complicated appendicitis has dropped dramatically to nearly zero. The overall morbidity in children with complicated appendicitis is less than 10%.

Conclusion

In conclusion, appendectomy is safe for the treatment of appendicitis in children but is not without complications. Close postoperative follow-up and a high index of suspicion for the development of complications is essential. With accurate diagnosis of complications and timely and appropriate management of these patients will decrease the morbidity in children after surgical treatment of appendicitis.

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