

Special Article - Pediatric Surgery

Case Report: Metal Screw and Appendicitis in a Twenty Eight Month Child

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Abstract

Ingestion of foreign body is a common behavior among pediatric population. Appendicitis secondary to foreign body dislodgment in the pediatric population is a rare event [4]. A 2 year and 4 month old girl presented to our clinic with complaint of right lower quadrant abdominal pain. She initially was visited in an outside facility and plain radiographs were obtained and a foreign body was seen in her RLQ abdomen. Considering the ingested foreign body and her clinical situation, she was prepped for operation [4]. Interestingly, first case of appendectomy was on a child who ingested a metal sewing pin and developed acute perforated appendicitis [6]. Since then, it has been reports of needles, shotgun pellets, bird shots, hazelnut, hair, sand, stones and screws which were dislodged in the appendix [1,8-14]. It is indicated in the literature that ingested foreign bodies should be surveyed clinically and radiographically until they completely pass through the GI tract [15].

Keywords: Appendicitis; Foreign body

Introduction

Ingestion of foreign body is a common behavior among pediatric population. The majority of the foreign bodies transit through gastrointestinal tract without causing any complication [1]. However it has been reports of perforation, abscess formation and obstruction in the GI tract [2-4]. Appendicitis secondary to foreign body dislodgment in the pediatric population is a rare event [4]. We present a case of appendicitis caused by ingestion of a metal screw in a twenty eight month child. Appendix was inflamed and congested and had a bulge near it's tip. Appendix examination at bedside revealed a black 8 mm screw and two small pieces of appendicolith.

Case Presentation

A 2 year and 4 month old girl presented to our clinic with complaint of right lower quadrant abdominal pain. Pain started a day before presentation and had a vague and colicky nature. No other systemic or GI related symptoms were reported. Her past medical, surgical, familial and social history was insignificant. She initially was visited in an outside facility and plain radiographs were obtained and a foreign body was seen in her RLQ abdomen (Figure 1). In her physical examination, she had mild right lower quadrant tenderness with signs of peritoneal irritation. Considering the ingested foreign body and her clinical situation, she was prepped for operation. Through a transverse right lower quadrant incision appendectomy was performed. Appendix was inflamed and congested and had a bulge near it's tip. Appendix examination at bedside revealed a black 8mm screw and two small pieces of appendicolith (Figure 2).

Discussion

It has been multiple reports of acute appendicitis caused by foreign body ingestion in the appendix in the adult population [5]. However the incidence in the pediatric population has been rare [4]. Interestingly, first case of appendectomy was on a child

who ingested a metal sewing pin and developed acute perforated appendicitis [6]. After then in 1912 Eames reported a 15year old boy with right lower quadrant abdominal pain and tenderness, having a needle in the appendix [7]. Since then, it has been reports of needles, shotgun pellets, bird shots, hazelnut, hair, sand, stones and screws which were dislodged in the appendix [1,8-14]. It is indicated in the literature that ingested foreign bodies should be surveyed clinically and radiographically until they completely pass through the GI tract [15]. It is recommended that objects stopped traversing the RLQ of abdomen for at least 72 hours, should be removed by colonoscopy [4,16]. In general if the object dislodges in the appendix or even stops progressing, an appendectomy is indicated to prevent further complications even if there is no symptoms, specifically in case of sharp and pointed objects [17,18]. Obviously as in our case if there is any sign or symptoms of appendicitis, operation should be planned without any further work up [1,15].



Figure 1:



Figure 2:

References

- Sukhotnik I, Klin B, Siplovich L. Foreign-body appendicitis. *J Pediatr Surg.* 1995; 30: 1515-1516.
- Baek SK, Bae OS, Hwang I. Perforated appendicitis caused by foreign body ingestion. *Surg Laparosc Endosc Percutan Tech.* 2012; 22: 94-97.
- Sar S, Mahawar KK, Marsh R, Small PK. Recurrent appendicitis following successful conservative management of an appendicular mass in association with a foreign body: A case report. *Cases J.* 2009; 2: 7776.
- Schwab D, Baum U, Hahn EG. Colonoscopic treatment of obstructive appendicitis caused by dislocation of a biliary stent. *Endoscopy.* 2005; 37: 606.
- Klingler PJ, Seelig MH, DeVault KR, et al. Ingested foreign bodies within the appendix: A 100-year review of the literature. *Dig Dis.* 1998; 16: 308-314.
- Creese PG. The first appendectomy. *Surg Gynecol Obstet.* 1953; 97: 643-652.
- Eames W. Needles in appendix. *Br Med J.* 1912; 2: 1708.
- Sinha DD, Sharma C, Gupta V, et al. Sewing needle appendicitis in a child. *Indian J Gastroenterol.* 2004; 23: 219-220.
- Losanoff JE, Jones JW, and Richman BW. Acute appendicitis resulting from intraluminal shotgun pellets. *ANZ J Surg.* 2002; 72: 168.
- Larsen AR, Blanton RH. Appendicitis due to bird shot ingestion: A case study. *Am Surg.* 2000; 66: 589-591.
- Miller GG, Fraser GC, Jevon G. Pilonidal appendicitis' or 'the hair of the dog: An unusual case of foreign body perforation of the appendix. *J Pediatr Surg.* 1996; 31: 703.
- Moorjani V, Wong C, Lam A. Ingested foreign body mimicking an appendicolith in a child. *Br J Radiol.* 2006; 79: 173-174.
- Samujh R, Mansoor K, Khan I, et al. Screw- appendicitis. *Indian Pediatr.* 2007; 44: 611-612.
- Kucukaydin M, Icer M, Okur H. Hazelnut appendicitis. *Pediatric Surgery International.* 1992; 7: 223-224.
- Hartin CW, Lau ST, Caty MG. Metallic foreign body in the appendix of 3-year-old boy. *J Pediatr Surg.* 2008; 43: 2106-2108.
- Sarkar RR, Bisht J, Sinha Roy SK. Ingested metallic foreign body lodged in the appendix. *J Indian Assoc Pediatr Surg.* 2011; 16: 29-30.
- Green SM, Schmidt SP, Rothrock SG. Delayed appendicitis from an ingested foreign body. *Am J Emerg Med.* 1994; 12: 53-56.
- Klingler PJ, Smith SL, Abendstein BJ, Brenner E, Hinder RA. Management of ingested foreign bodies within the appendix: A case report with review of the literature. 1997; 92: 2295-2298.