CASE REPORT

Perforated Appendicitis with Massive Intraperitoneal Free Air in A Two Month Old Baby

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ABSTRACT

Peritonitis due to perforated appendix in infant is an uncommon condition which is not suspected preoperatively. A two month old male baby presented with bilious vomiting and huge abdominal distension. Signs of peritonitis were present on clinical examination. X-ray abdomen showed massive intraperitoneal free air. At laparotomy perforated appendix was found. Appendectomy was done. Postoperative course was uneventful.

Key words *Acute appendicitis-infant, Perforated appendix-infant, Peritonitis-infant.*

INTRODUCTION:

Acute appendicitis can occur at any age. It most commonly occurs in young adolescents, predominantly males. It is rare in neonatal period and infancy.[1,2] Herein a two month old baby with signs of peritonitis due to perforated appendix is reported.

CASE REPORT:

A two month old male presented to ER with pain abdomen, fever of 100°F and excessive crying for eight days. Gradual abdominal distention was noted by parents. Baby also became reluctant to feed and developed vomiting; initially non bilious and then bilious. For these complaints treatment was sought from general practitioner who advised admission in a private hospital under care of pediatric physician from where the baby was referred to our ER. Baby had uneventful past history and remained well till present event.

On examination baby was lethargic, with the heart rate of 140 beats per minute, respiratory rate of 45 breaths per minute and temperature of 99°F. Abdomen was grossly distended, tense and tympanitic on percussion. Gut sounds were not audible. A diagnosis of peritonitis due to intestinal perforation was made. X-ray abdomen showed massive free gas in the abdomen. Supplemental oxygen was started and fluid resuscitation began. Nasogastric tube was placed to decompress stomach. Tube laparostomy was done in OR to release the intra abdominal pressure. This facilitated respiration of the baby. Biochemical and hematological profile were sent. After resuscitation with adequate urine output, patient was operated.

Patient then underwent exploratory laparotomy. On opening peritoneal cavity minimal contamination localized in right lower abdomen was found. Appendix was inflamed and perforated at its distal part with healthy base (Fig. I). Appendectomy was performed and peritoneal lavage done with warm normal saline. Patient recovered smoothly in postoperative period and started oral feed after 24 hours and discharged a day later. Histopathology report of the specimen was consistent with acute appendicitis.

DISCUSSION:

Acute appendicitis is described in all age groups including premature neonates.[3] In a review of literature authors found a total of 141 reported cases of neonatal appendicitis from year 1901–

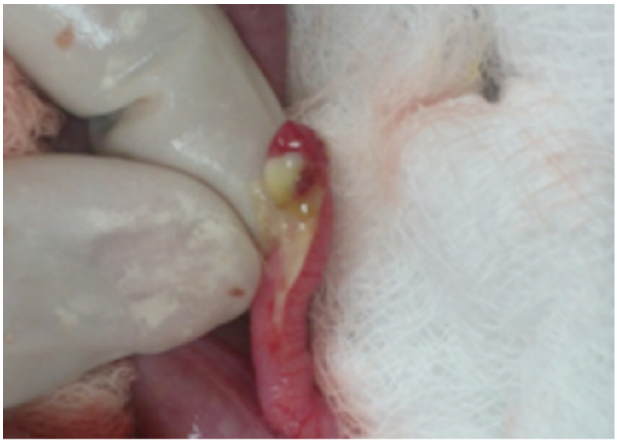

Fig. I: Appendix perforated at its distal part.

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2000 in English language literature.[4] Acute appendicitis is also reported in infantile age group but is rare. Majority of the cases are treated either as peritonitis or intestinal obstruction.[5] Same happened in index case.

Pneumoperitoneum due to perforated appendix is also rare. Cannova JV et al cited other authors reporting an incidence of pneumperitoneum in acute appendicitis cases, as 0% - 7.1%.[6] In index case free intraperitoneal gas was massive. This compromised respiration of the infant. A tube laparostomy was therefore performed to facilitate ventilation as part of resuscitation effort. This did improve general condition of the infant. The reason behind massive free air was revealed at laparotomy where perforation was noted along the length of distal part of the appendix. Appendix was found free lying in the right iliac region. This might have led to easy transgression of air into the peritoneal cavity.

The signs of intestinal obstruction in the index case managed were not due to mechanical obstruction as has been reported by other authors.[5] It was the outcome of intraperitoneal contamination which although was minimal. Appendectomy in this patient was easy though exploration was done through supraumbilical transverse muscle cutting laparotomy incision. This case highlights the notion that in surgical field surprises do occur and one should be ready to face the challenges.

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