Transmural infiltration by acute inflammatory cells mainly eosinophils and few neutrophils.

Discussion

Intussusception was first described in 1674 by Barbette of Amsterdam [5]. AI may present with acute, sub-acute or chronic non-specific clinical features, posing a diagnostic challenge to the physicians. Our patient presented with clinical features of acute appendicitis and surgical exploration revealed ileocolic intussusception; acutely inflamed appendix being the lead point triggering the invagination of ileum into the ascending colon. The exact mechanism that

Figure 1: CT scan with intravenous contrast showing a sausage-shaped soft tissue mass in the right side of abdomen with an eccentric area of fat density.

Figure 2: Per operative view of the ileocolic intussusception.
precipitates intussusceptions is still unknown, but it is proposed that any lesion in the bowel wall or irritant within the bowel lumen may alter the normal peristaltic pattern leading to an invagination ending up with intussusceptions [6]. Unlike the common idiopathic variety of intussusception in children, AI invariably contains a lead point. Zubaidi et al. [7] reported that 80% of AI was associated with a definable lesion. Twenty-nine percent of enteric lesions were malignant. All ileocolic lesions were malignant of colonic lesions, 33% and 67% were benign. All cases required surgical interventions except one. Meckel’s diverticulum is the commonest within a large number of lead points of structural, vascular/hematological, neoplastic, or inflammatory character [8]. Benjelloun et al. [9] described an interesting case of small bowel intussusception with the Meckel’s diverticulum after blunt abdominal trauma. The present case report describes AI due to acutely inflamed and swollen appendix. The same cause if intussusception has been previously reported in the published literature [10].

The most common presenting symptoms of abdominal pain, nausea, and emesis in the acute presentation, are observed in only 20 percent of AI [11]. Intermittent abdominal pain and vomiting are the major symptoms of subacute or chronic AI [12]. The classic presentation of pediatric intussusception comprising abdominal pain, mass, blood per rectum, are rarely found in adults. Frequent physical findings include abdominal distention, decreased or absent bowel sounds, guaiac-positive stool, and abdominal mass [13]. Because of the variability in clinical presentation and the confusion experienced in imaging, it is not uncommon that the diagnosis is established only at the time of laparotomy.

The diagnostic armamentarium includes contrast studies which can help to identify the site and cause of the intussusception, particularly in more chronic cases. Upper gastrointestinal series may show “stacked coin” or “coiled spring” appearance [14]. Barium enema examination may be useful in patients with colonic or ileocolic intussusception in which a cup-shaped filling defect is a characteristic finding. Ultrasound done by an experienced sonologist has both high sensitivity and specificity in the detection of AI. Classic findings on transverse scanning include a so-called “target lesion” or “doughnut sign”, with the presence of several concentric rings [15,16]. Abdominal CT, with a diagnostic yield of 78%, not only identifies the lesion but also helps in identifying the underlying cause [17]. The CT appearance of AI is often a complex sausage-shaped soft tissue mass with an eccentric area of fat density contained within, which represents the mesenteric fat. The mesenteric vessels may be visible.

Surgery offers optimal treatment of AI. The management strategies depend on the presence of distinct malignancy and the local factors such as the degree of associated edema, and relative ischemia of the involved bowel [18]. Resection is indicated in cases of large bowel AI, but reduction without resection may be an option in cases of small bowel involvement where the incidence of malignancy is not great and no abnormality of the small intestine is observed [19]. Although, intussusceptions themselves have a good prognosis, it is often the nature of the lesion causing the intussusceptions. Mortality for AIs increases from 8.7% for the benign lesions to 52.4% for the malignant variety [11].

AI remains a clinical challenge to the physicians due to wide spectrum of presentations and etiologies. There is always an identifiable lead point which necessitates surgical intervention.

References