INTRODUCTION

Enteric duplication cysts include a wide variety of cystic lesions which can involve any part of Gastrointestinal Tract (GIT). They can be referred to foregut, midgut, hindgut derived, depending upon the portion of GIT involved. The most common site of GIT involved is small intestine, in 50% of cases. Small intestinal duplication cyst usually present with abdominal pain or mass and rarely as intussusception, volvulus or small bowel obstruction. It may also present very rarely as inguinal hernia of which only 2 cases have been reported yet. We report a 3 years child presenting as hydrocoele of the cord which turned to be duplication cyst which is very rare presentation.

CASE REPORT

A 3 years male child presented with complaint of right inguinal swelling since 15 days which was noticed by her mother while she was giving him bath. There was also history of cough and constipation from 02 months. On examination, 1.5 x 1 cm swelling in right inguinal region was present which was soft, cystic, non-tender, upper limit approachable, moving with movement of cord, irreducible and testis was separately palpable. Examination of the opposite side was unremarkable. A diagnosis of hydrocoele of cord was made and herniotomy was planned.

On exploration, sac was friable and there were free floating flakes of cheesy material in the sac within thick greasy fluid and it was communicating with the peritoneum. Tuberculous tubercles were suspected as these are quite common in this part of world. So fluid and tubercles in the sac were sent for AFB and culture and sensitivity and routine herniotomy was done with high ligation of proximal sac. His postoperative recovery remained uneventful. His workup for tuberculosis including fluid for AFB, culture and sensitivity, ESR and montoux test turned out to be negative. Biopsy report of sac showed myxoid changes with no evidence of tuberculosis. Postoperative ultrasound abdomen showed a cystic area of 3.8 x 2 x 4.4 cm in Right Iliac Fossa (RIF) whose origin could not be seen. CT abdomen with oral and IV contrast was obtained which showed a cystic swelling of 4 x 3.5 cm in RIF just lateral to urinary bladder, lying over the iliopsoas, with no communication with bowel. But the origin of this cystic swelling could not be ascertained (Figure 1).

So his exploratory laparotomy was planned. It was started as laparoscopy which had to be converted to...
open procedure as cyst was very closely related to small bowel and safe dissection was technically not possible. It turned out to be a duplication cyst, involving mesentery of the ileum, 5 cm proximal to ileocecal junction, passing from one side of the mesentery to other (Figure 2). It had no communication with the bowel. It was containing free floating tubercles with cheesy material, as was present in hernia sac. Complete excision of mesenteric cyst was done through mesentery saving the small intestine (Figure 3). His postoperative recovery remained uneventful. Biopsy report confirmed the presence of intestinal epithelium and diagnosis of duplication cyst.

DISCUSSION

Enteric or alimentary tract duplication cyst can occur throughout GIT, from oropharynx to anus with slight male preponderance. Its incidence is found to be one in 4500 by autopsy series. The first report of duplication cyst was by Calder in 1733. It had been previously known as giant diverticula, enterogenous cyst, giant thoracic cyst and unusual Meckle’s diverticulum.2 According to Ladd, any congenital lesion having three characteristics can be labeled as duplication cyst: (1) well developed smooth muscles; (2) GIT epithelium; (3) anatomical association with some parts of GIT.3

There are various theories of its origin but no single theory accounts for all variants. One theory is split notochord theory which very rightly explains thoracic and neuroenteric cysts. Another theory is defective canalization of GIT leading to enteric duplication. Trauma and hypoxia is also thought to be causative agent, inducing duplication and attempts at twinning.4

The majority of duplication cysts present in first 2 years of life. Their presentation depends upon the part of GIT involved. They present most commonly with pain abdomen or mass abdomen and less commonly with intussusception, volvulus and intestinal obstruction. Pre-operative diagnosis can be made with ultrasound and CT scan which can confirm regarding its origin. They can usually be excised en block through mesentery, sometimes needing bowel resection and sometimes marsupialization.4,5

Li and colleagues characterized small intestinal duplication cyst, into two types depending on its blood supply. In type 1 lesion (parallel), duplication is more towards mesentery, having separate blood supply from native bowel. In type II lesion (intramesenteric), duplication is centered in mesentery having vessels from both sides of mesentery.6 This case was of type 1, that was why it was safely excised.

There were two previously reported cases of duplicate presentation as inguinal hernia,7,8 but not any literature of its presentation as hydrocoele of cord. So careful clinical examination and high index of suspicion is needed during abdominoscrotal surgery for other concomitant diseases.

REFERENCES