

Case Report

Double Compound Intussusception—A Clinico-radiological Correlation

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Intussusception is the invagination of a proximal segment of intestine into a distal segment leading to intestinal obstruction. The rarest form of intussusception is the Compound Intussusception. In adults, the typical signs and symptoms may be present in only a small subset of patients. Hence, the diagnosis may be missed clinically. Computerised Tomographic (CT) Scan can prove to be a useful adjunct for the diagnosis. In patients with Compound Intussusception, the Triple Circle Sign may be seen on CT scan, which gives a useful clue to the diagnosis. This clinico-radiological correlation can help in early diagnosis and intervention and lead to decreased morbidity in patients.

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Key words : Intussusception, Compound intussusception, Triple circle sign, CT scan.

Intussusception is the invagination of a proximal segment of intestine into a distal segment leading to intestinal obstruction. Rarely, it may invaginate in a retrograde direction. The rarest form of intussusception is the Compound Intussusception in which there is combination of antegrade and retrograde or double antegrade intussusception¹. It has to be differentiated from 'Multiple Intussusception' where there are two (or more) intussusceptions in different parts of the intestine and are usually due to congenital or acquired lead points, which may cause a motility problem².

Clinical features are often not very sensitive in diagnosing adult intussusception and are pathognomonic in only 10% of adult intussusceptions³. The diagnosis of a Compound Intussusception is usually made intra-operatively. However, pre-operative CT scan can give a clue by showing the Triple Circle Sign⁴. This is formed by multiple concentric circles, the outer circle being the distal segment, the middle being the second prolapsed segment and the inner being the most proximal segment.

We report a case, where the patient presented with recurrent episodes of lower abdominal pain. Patient was managed conservatively and a CT Scan advised which showed the Triple Circle Sign (Fig 1). It provided a clue, as the classical triad of palpable abdominal mass, abdominal pain and bloody stool was absent. Intra-operatively, after reduction of the antegrade ileo-colic segment, another ileo-ileal antegrade intussusception was found proximally, leading to the diagnosis of Double Compound Intussusception (Fig 2). But, no lead point

Editor's Comment :

- Clinical features not sensitive in diagnosing adult intussusception.
- Pathognomonic in only 10% of adult intussusceptions.
- Rarest form of intussusception is the **Compound Intussusception**. Usually diagnosed intra-operatively.
- Preoperative CT scan showing **Triple Circle Sign** can give an important clue.

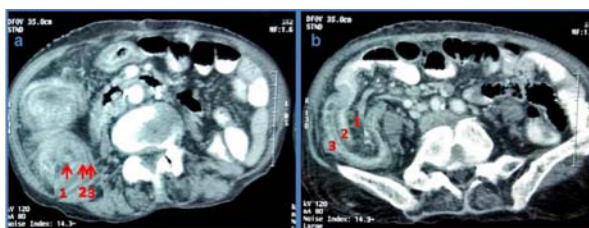


Fig 1(a,b) — CT scan images showing Triple Circle Sign suggestive of Compound Intussusception

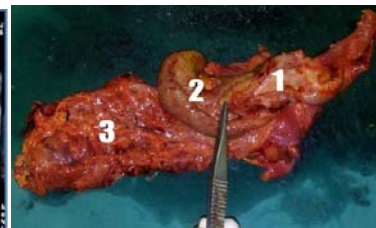


Fig 2 — Resected specimen showing Double Antegrade Compound Intussusception

1-proximal ileal intussusceptum, 2-second ileal intussusceptum, 3-distal colonic intussusceptient segment

was detected, leading to the diagnosis of idiopathic intussusception, which occurs in only 10% adult intussusceptions⁵. Resection and anastomosis of the involved segment was done. The patient had an uneventful recovery.

Thus, the Triple Circle Sign on CT Scan helps in early diagnosis of a Compound Intussusception, even when typical clinical signs and symptoms are absent.

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