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Case Report

Case Report –Appendicitis in Situs Inversus Totalis

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Abstract: Situs inversus totalis is a rare anomaly and acute abdominal conditions in these patients poses a challenge in diagnosis as well as treatment. We report a case of acute appendicitis in a 27 year old male who came to emergency department of IGMC Shimla with pain in left iliac fossa. Patient was investigated evaluated and with help of radiological investigations diagnosed as situs inversus totalis with acute appendicitis. Patient operated on the same, appendectomy done and discharged on POD-2.

Keywords: Appendicitis Inversus Totalis.

INTRODUCTION

Situs inversus totalis is a rare anatomic anomaly. It is an inherent disease in which the thoracic and abdominal organs are transposed [1, 2]. Estimated incidence is 0.001-0.01%. It is an autosomal recessive disease [3]. Visceral situs inversus can occur with or without dextrocardia. Kartagener syndrome is characterised by triad of situs inversus, sinusitis and bronchiectasis. Acute appendicitis is one of the most common surgical conditions, requiring an emergency operation and accounting for 4% to 8% of all emergency department (ED) visits [4]. In a patient of situs inversus totalis diagnosis in a case of acute abdomen is always chalanging. So carefull history and examination help in proper diagnosis and treatment of disease.

CASE REPORT

A 27 year old male presented in the emergency department of IGMC Shimla with history of pain in left iliac fossa for 1 day. Pain was initially in umbilical region but after some time pain shifted to left iliac fossa, pain was pin pricking in nature, moderate intensity, continuous, no aggravating and relieving factor.

History of anorexia, nausea / vomiting present. History of fever, blood in stool and constipation absent. On general physical examination P.R. was 88 beats /minute, B.P. was126/80 mm Hg, SPo_2 was 92 percent on room air and respiratory rate was 16 / minute. On per abdomen examination tenderness present in left iliac fossa and rebound tenderness present. Digital rectal examination was within normal limit. Blood investigations and radiological investigations were done. On Chest Xray there was dextrocardia (Figure 1). On USG examination done in emergency – Liver was normal in size outline and echotexture and is seen in left hypochondrium. SMA is seen on the right side and SMV on left side. Spleen is seen on right side in right hypochondrium. There is evidence of aperistaltic tubular non compressible blind ending structure seen in left iliac fossa with maximum calibre of 7mm with periappendiceal fluid, which is suggestive of acute appendicitis. Hemogram, renal function test with serum electrolytes and liver function test were within normal limits. Alvorado score was 6/10. Patient was planned for emergency surgery which was done on the same day. Incision was given on left spinoumbilical line at junction of medial two third and lateral one third with incision one third above line and two third below line. Approximately 6-7 c.m. incision given, abdomen opened and appendix identified which is approximately 9-10 c.m. in length, retrocaecal in position, no

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perforation, no gangrene ,no faecolith .Appendix was angry red looking, periappendiceal fluid present, base was healthy. No Meckel's diverticulum and rest of gut was normal .Appendectomy done. Haemostasis ensured, wound closed in layers and skin closed with metal clips and skin stappler. Post-operative period was uneventful. Patient discharged on post-operative day -2.

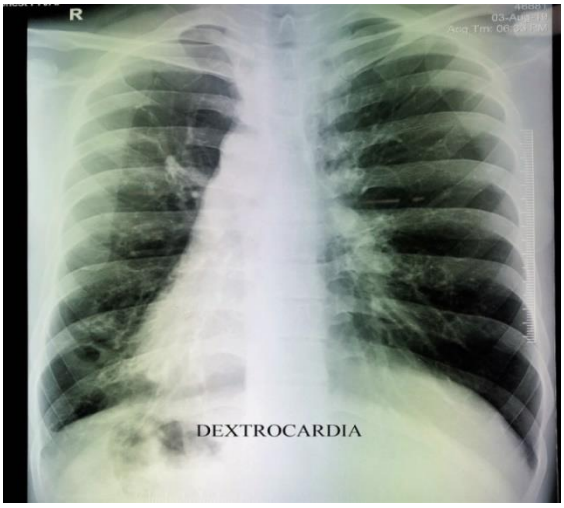

Fig-1: xray showing dextrocardia

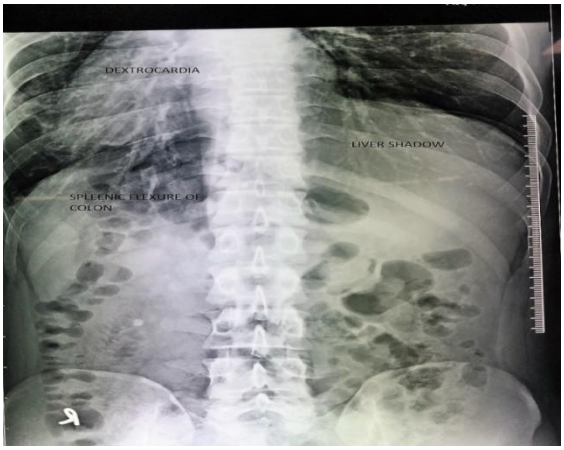

Fig-2: Xray showing dextrocardia ,and liver shadow on left side

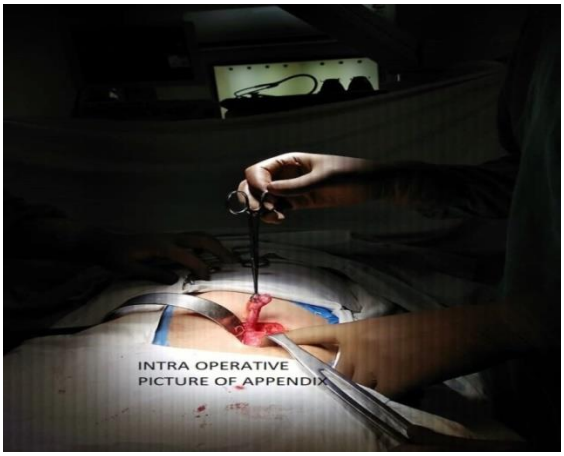

Fig-3: Image showing intraop picture of appendix on Lt. side

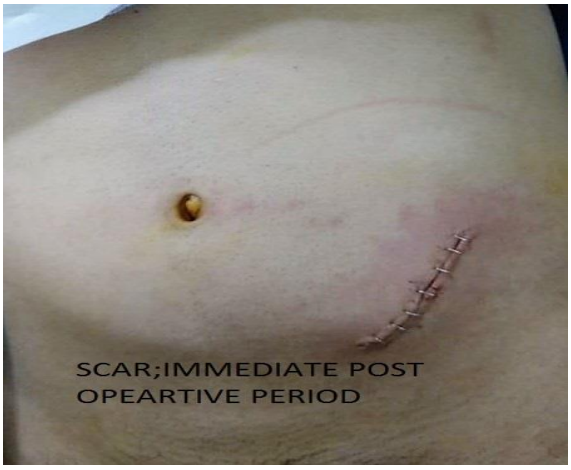

Fig-4: Imageshowing scar on left side

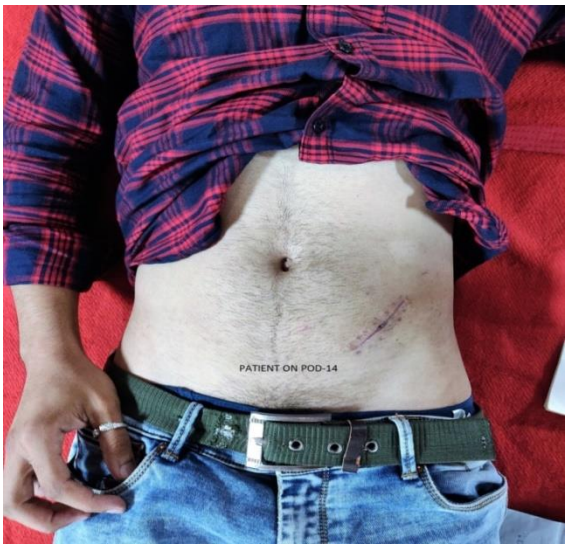

Fig-5: Image showing scar on POD-14

DISCUSSION

Situs inversus totalis is a rare congenital disorder. In situs inversus totalis there is transposition of the major thoracic organs and all the visceral organs of the abdomen to the side opposite to normal position in the body (mirror imaging). The normal development requires a 270 degree counter clockwise rotation that yields the normal anatomy. In situs inversus totalis, the 270 degree rotation is in the clockwise direction [5]. Etiology is thought to be due to a single autosomal recessive gene of incomplete penetration. The male to female ratio is 1:1 and there is no racial predilection.

In cases of acute abdomen diagnosis is difficult due to altered anatomy in cases of situs inversus so it is important to be aware of the presence of situs inversus to ensure the correct diagnosis and treatment. Misdiagnosis and delayed diagnosis can lead to increase in morbidity and sometime mortality. CECT is the preferred modality for diagnosis. However USG can serve the purpose in the emergency setting.

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