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LADD'S BAND- A RARE CAUSE OF DUODENAL OUTLET OBSTRUCTION IN ADULTS

Sanjay Marwaha*	Department of Surgery and Medical Gastroenterology, PGIMS, Rohtak, Haryana, India. *Corresponding Author
Parveen Malhotra	Department of Surgery and Medical Gastroenterology, PGIMS, Rohtak, Haryana, India.
Mahavir Jangra	Department of Surgery and Medical Gastroenterology, PGIMS, Rohtak, Haryana, India.
Harshit Goyal	Department of Surgery and Medical Gastroenterology, PGIMS, Rohtak, Haryana, India.
Rahul Siwach	Department of Surgery and Medical Gastroenterology, PGIMS, Rohtak, Haryana, India.
Bibin CF	Department of Surgery and Medical Gastroenterology, PGIMS, Rohtak, Haryana, India.

ABSTRACT **Introduction:** Intestinal bands, often congenital (e.g., Ladd's bands) or acquired (post-surgical adhesions), can cause extrinsic compression leading to duodenal outlet obstruction. This results in severe vomiting, abdominal pain, and weight loss, primarily affecting children or, rarely, adults. Anomalous congenital bands are a rare cause of intestinal obstruction, especially in adults. **Case Report:** A twenty-five-year-old girl presented with recurrent vomiting and abdominal pain for last two weeks. The vomiting was non-bilious and contained ingested food particles. There was no significant past medical history, with no previous abdominal surgeries or trauma. Physical examination revealed abdominal tenderness and decreased bowel sounds. The x-ray abdomen showed dilated stomach. The endoscopy revealed resistance in transversing duodenum first part but with force endoscope reached D2. It looked that there was some extrinsic compression. The ultrasound also showed only dilated stomach, hence contrast enhanced computed tomography scan was done which only confirmed dilated stomach and no cause for extrinsic compression at level of duodenum. The patient symptoms persisted, hence keeping duodenal outlet obstruction in mind, laparoscopy was done which revealed intestinal band arising from caecum and extending up to D2 junction and the same was causing extrinsic compression. The caecum was in right upper quadrant and appendicectomy was also done, along with excision of fibrous band and kocherisation of duodenum. Patient started improving post-operatively and was discharged on fifth post-operative day and she was accepting orally well. **Conclusion:** Intestinal obstruction at any age merits detailed evaluation and sometimes atypical and rare causes can be encountered which even are not diagnosed properly and diagnostic laparoscopy becomes key to success, as in our present case.

KEYWORDS : Duodenal outlet obstruction, Anomalous congenital band, Vomiting, Abdominal distension, Pain abdomen

INTRODUCTION-

Intestinal obstruction is a common acute emergency in children and young adults, due to both intrinsic and extrinsic causes **(1)**. Typical causes include intussusception, malrotation, ileus, adhesion bands, and Hirschsprung's disease **(1,2)**. Anomalous congenital bands, which are neither of embryological nor inflammatory origin, are a rare cause of intestinal obstruction, with the ileum being the most commonly affected site **(3)**. To date, only few cases have been reported, yet only five cases involving duodenal obstruction due to idiopathic congenital bands have been documented **(4-7)**. Intestinal obstruction caused by ACBs is a very rare entity, and these bands present a preoperative diagnostic challenge. In most cases, ACBs are found in the pediatric age group, predominantly (84 %) in males, although some cases have also been reported in adults **[11]**. Their clinical manifestations typically include abdominal pain, distension, vomiting, constipation, and poor feeding **[8-11].** Our case report presents a young female with no prior history of chronic abdominal pain, vomiting, or abdominal surgery who experienced acute duodenal obstruction due to congenital band.

CASE REPORT-

A twenty-five-year-old girl presented with recurrent vomiting and abdominal pain for last two weeks. The vomiting was non-bilious and contained ingested food particles. There was no significant past medical history, with no previous abdominal surgeries or trauma. On physical examination, she was moderately built and nourished. She exhibited moderate tenderness in the upper quadrant of the abdomen, without rebound tenderness. Bowel sounds were notably reduced, with an observed frequency of three per minute. The routine biochemical labs including complete hemogram, liver & renal viral screen, function tests, lipid & thyroid profile, blood sugar, serum IgATTG antibody, urine complete examination and ECG were all normal. The x-ray abdomen showed dilated stomach. The endoscopy revealed resistance in transversing duodenum first part but with force endoscope reached D2. It looked that there was some extrinsic compression. The ultrasound also showed only dilated stomach, hence contrast enhanced computed tomography scan was done which only confirmed dilated stomach and no cause for extrinsic compression at level of duodenum. The patient was kept nil per orally and Ryle's tube was put for decompression but symptoms persisted, hence keeping duodenal outlet obstruction in mind, laparoscopy was done which revealed intestinal band arising from caecum and extending up to D2 junction and the same was causing extrinsic compression. The caecum was in right upper quadrant and appendicectomy was also done, along with excision of fibrous band and kocherisation of duodenum. Patient started improving post-operatively and was discharged on fifth post-operative day and she was accepting orally well

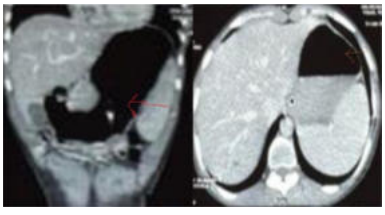

Fig 1 & 2- CT Scan Abdomen Showing Grossly Dilated Stomach in Different Views

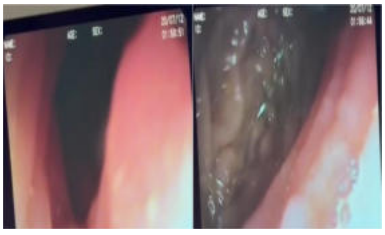

Fig 3 & 4- Endoscopy Showing Extrinsic Compression at D1-D2 Junction in Different Views

DISCUSSION-

There is limited literature regarding intestinal obstruction due to congenital bands. Over two-thirds have been seen in children, with the majority experiencing their first obstruction before adolescence. Males were disproportionately affected, accounting for 71.0% of the cases. Most studies held the opinion that congenital bands were extremely rare in adults **[12-14**]. Considering their embryologic origin, congenital bands are present from birth and typically lead to clinical symptoms early in life **[15]**. However, a portion of cases become symptomatic later in life, and the underlying reasons warrant further exploration. Similar to other congenital malformations, such as Ladd's bands or Meckel's diverticulum, congenital bands might remain asymptomatic in adults due to their specific location or structure **[16-18]**. Occasionally, changes in the body-such as alterations in abdominal pressure, abnormal gastrointestinal motility, or age-related changes in tissue elasticity-may contribute to the onset of symptoms later in life. Moreover, it is possible that some reported "congenital bands" were actually acquired, particularly in adults, where a history of abdominal surgery, trauma, or inflammations could lead to the formation of fibrous bands that mimic congenital bands **[19]**.

CONCLUSION-

Intestinal obstruction at any age merits detailed evaluation and sometimes atypical and rare causes can be encountered which even are not diagnosed properly and diagnostic laparoscopy becomes key to success, as in our present case.

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