

Annular Pancreas; Delayed presentation a Case Report

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Abstract: Annular pancreas is a clinicopathological condition in which ectopic pancreatic tissue encircles around the duodenum and usually causes partial obstruction, but when associated with web or stenosis causes complete obstruction. These children usually present in neonatal period and infancy and straightway surgery is the treatment. Rarely presentation may be delayed as in this case who presented to us at 5 years of age with recurrent attacks of vomiting and a diagnosis of annular pancreas was made and the patient underwent duodenoduodenostomy.

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I. Introduction

Annular pancreas (AP) is a rare congenital anomaly (1/20000),¹ characterised by ectopic pancreatic tissue encircling duodenum due to incomplete rotation of ventral pancreatic bud. It leads to duodenal obstruction in neonates and infants. Annular pancreas may cause complete obstruction and presentation is early in neonates and infants. Sometimes it may cause partial obstruction and delayed presentation late in adolescent and adult age group.² Diagnosis may be made with gastroscopy, CT and MRI or at laparotomy.²

II. Case Material

A 5 year old boy presented to hospital with history of recurrent pain rt. upper abdomen, postprandial distension, occasional vomiting and history of weight loss for last 5 months. There was a history of non-bilious vomiting during first month of life. There was no other significant family history. On examination the child was underweight with no other congenital abnormality. Abdominal examination and X- ray abdomen was unremarkable. Ultrasound abdomen revealed dilated stomach. Barium meal upper GI contrast study revealed classical Double Bubble sign (fig.1). A provisional diagnosis of duodenal stenosis was made. Patient was prepared and posted for surgery and upon exploration; a classical annular pancreas (fig-2) was seen encircling the duodenum causing obstruction. Duodenoduodenostomy was performed. Pt did well in the post-operative period and was discharged after 10 days.

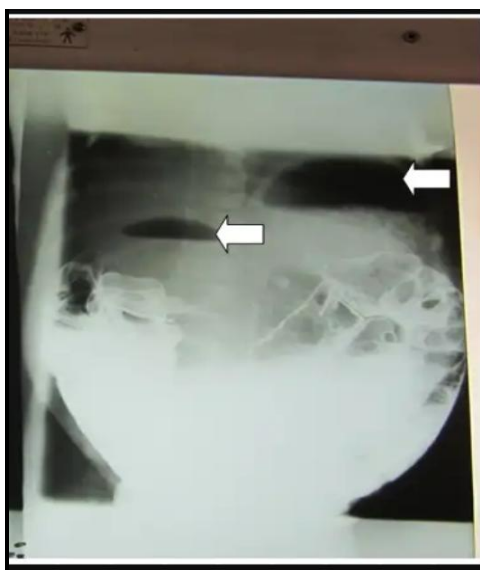


Fig. 1 . Upper GI contrast study showing classical double bubble sign.

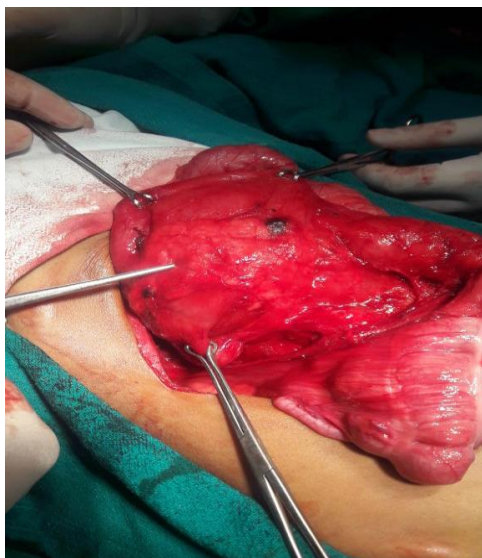


Fig. 2. Intraoperative picture of annular pancreas encircling duodenum.



Fig. 3. Showing Post –operative UGI- contrast study with free flow of contrast along duodenum and downwards.

FOLLOW –UP: Child is under follow up for last 1year and is doing very well.

III. Discussion

AP a rare congenital anomaly usually present in neonatal period with duodenal obstruction and the treatment is straight forward surgery. But, depending upon the degree and severity of obstruction some patients may present in later life , adolescence or in adult age.^{3,4} AP, encircling the duodenum may itself cause an extrinsic compression resulting in partial obstruction, but a duodenal atresia or stenotic web underlying the AP has often been the actual cause of blockage.^{5,6} In this patient, the underlying atresia or stenotic web was not evident on UGI study and partial obstruction by extrinsic compression let the patient tolerate the symptoms over a long period and thus the diagnosis was delayed. Traditionally, congenital duodenal obstruction has been diagnosed with plain radiograph and contrast study is usually not required, except for differentiating midgut volvulus mimicking duodenal atresia or stenotic web. However, in the absence of complete or near-complete duodenal obstruction, a contrast study or CT-Scan may be required.⁷

IV. Conclusion

Annular pancreas can present in neonates, infants, adolescent and in adult age group depending upon the degree of obstruction. Diagnosis can be made with UGI contrast study and/or CT – scan. Duodenoduodenostomy (kimura) diversion is the procedure of choice.

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