Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Pediatric Surgery

Antropyloric Atresia: Case Report

Y. Hajjaji[1*], A.Haita[1], S. Annattah[1], O. Dalero[1], S. Andaloussi[1], A. Elmadi[1]

[1]Pediatric Visceral and Urological Department, University Hospital of Tangier

DOI: 10.36347/sjmcr.2023.v11i05.017 | **Received:** 11.03.2023 | **Accepted:** 18.04.2023 | **Published:** 05.05.2023

***Corresponding author:** Y. Hajjaji
Pediatric Visceral and Urological Department, University Hospital of Tangier

Abstract **Case Report**

Congenital pyloric atresia (CPA) is a very rare surgical condition which occurs in about 1 in 100,000 newborns [1]. usually seen as an isolated anomaly or be associated with other anomalies like epidermolysis bullosa [2]. It affects male and female patients equally. Therapeutic strategies are multiple. We emphasize the importance of a prompt diagnosis to avoid potentially fatal complications and to warrant a good outcome even in the presence of a strange form of PA in the neonatal period. We present an additional case managed at the department of pediatric surgery Mohamed V Hospital, Tangier.

Keywords: Pyloric atresia, Epidermolysis bullosa, Pyloric diaphragm, Heineke–Mickulicz pyloroplasty.

INTRODUCTION

The first case of a patient with congenital pyloric atresia (CPA) was described by Calder in 1749. Touroff and colleagues performed the first successful operation in 1940 [3]. CPA is thought to result from developmental arrest between the 5th and 12th weeks of intrauterine life [4]. The estimated incidence of CPA is 1 of 100 000 live births, and it accounts for less than 1% of all upper-gastrointestinal- tract atresias [5].

Commonly, CPA occurs as an isolated lesion, which has good prognosis, but it can also be seen in association with other malformations, which can have a bad impact on the ultimate outcome [5].

CASE REPORT

It is about a newborn has 3 days of life, resulting from a pregnancy followed carried out with term, vaginal delivery, received at the unit of neonatology of the hospital Mohamed V for non bilious projectile vomiting, which goes back to his birth, without free interval . Emission of meconium has h24 then a stop of the matters and gases, the whole evolving in a context of apyrexia, the clinical examination reveled a newborn tonic and reagent, Weight 3200g with a flat abdomen without signs of denutrition or dehydration.

An abdominal X-ray showed an image of gastric dilation, without underlying aeration (Fig 1). Abdominal ultrasound showed a hypertrophic pylorus measuring 14mm in length and 9mm in thickness in relation to hypertrophic pyloric stenosis.

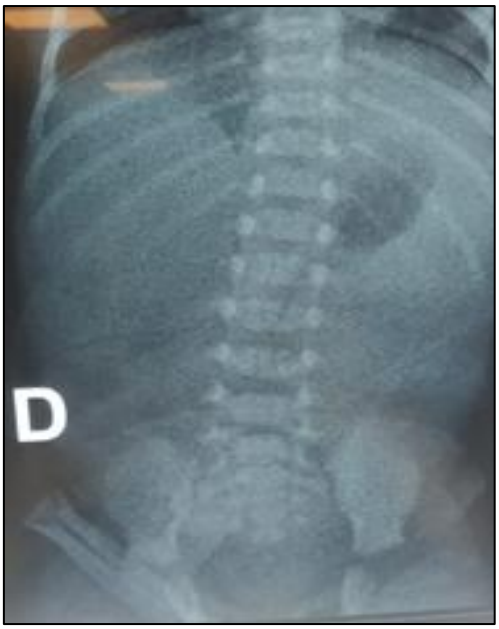

Fig 1: Abdominal X-ray showing gastric dilation

The Opacification confirmed the cessation of opaque product at the pylorus (Fig 2). The hypothesis of an antropyloric atresia was evoked, thus posing the operative indication, the surgical approach under general anaesthesia was a transverse supra-umbilical incision lateralized to the right.

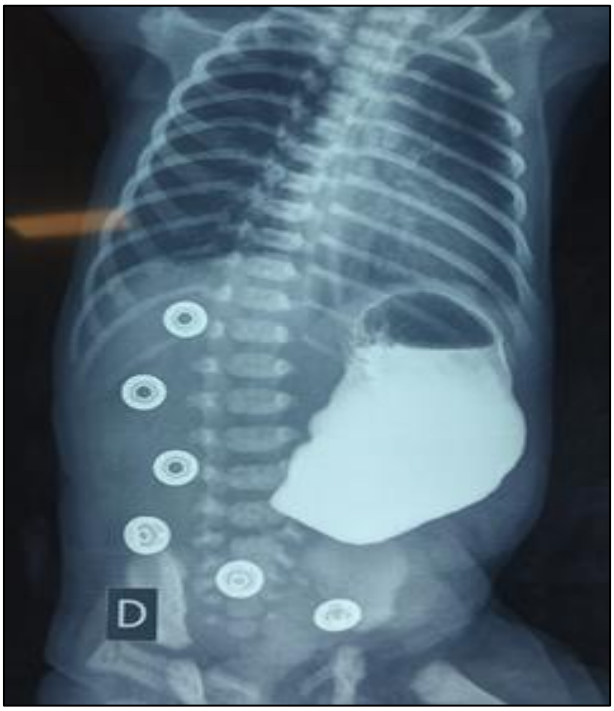

Fig 2: Abdominal opacification

The surgical exploration had shown an antropyloric diaphragm (Fig 3). The attitude consisted of a pyloroplasty according to Heineke-Mikulicz after resection of the diaphragm; the postoperative course was simple in the long term.

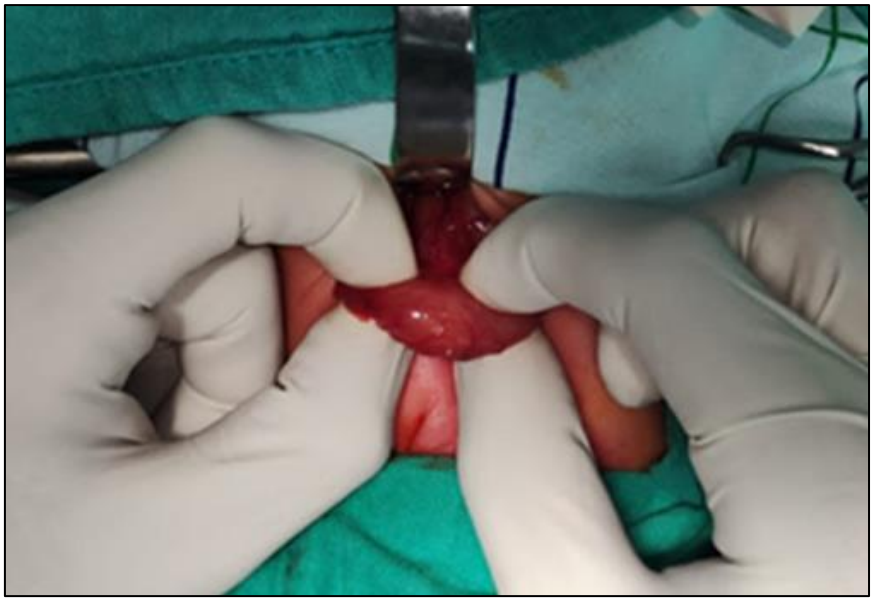

Fig 3: Intraoperative image showing antropyloric atresia

DISCUSSION

An extremely rare malformation constitutes about 1% of all intestinal atresias [1]. A definite etiology of the PA has not been identified, however literature suggests possibilities such as genetic predisposition, familial inheritance and potential intrauterine incidents such as failure of canalization or a vascular event [7]. There is no sexual predilection but most PA can be associated with low birth weight [8]. which was not seen in our case.

Distal obstruction of the stomach can occur at two very close levels, pyloric or pre-pyloric antrum. This obstruction presents itself in different forms [5]:

Type 1: Completely obstructive membranous atresia.

Type 2: Atresia of the pylorus without a solution of continuity.
Type 3: Complete atresia with a solution of continuity, possibly occupied by a fibrous cord.

A very particular association is that of epidermolysis bullosa, in its most frequent junctional form [6]. Antenatal ultrasound may show polyhydramnios and dilated stomach [9]. Postnatally the patient presents with immediate onset of non-bilious vomiting soon after birth without abdominal distention.

The diagnosis is made easily on plain abdominal X-ray, which shows a single gas bubble representing the distended stomach with no distal gas.

Double contrast examination allows a membrane to be better seen. Ultrasound may show an abnormally stretched pylorus.

Different operative procedures can be used, depending on the anatomic type. Pyloric atresia types 1 and 2: are treated by excision of the membrane and a Heineke-Mikulicz or Finney pyloroplasty [10], type 3 is treated by a Gastroduodenostomy.

The prognosis of PA is variable. Isolated CPA has good prognosis. The overall mortality is very high exceeding 50% but it is due to the high incidence of severe and often fatal associated anomalies [2].

Early diagnosis and surgery, together with current neonatal supportive care, have significantly improved the survival rate in these patients.

CONCLUSION

In conclusion, CPA is a very rare malformation that can be as an isolated lesion with an excellent prognosis, or be associated with other genetically determined conditions, such as EB. Its occurrence in association with other intestinal atresias is interesting and must be kept in mind. These atresias can affect any part of the gastrointestinal tract, from the oesophagus to the rectum. Whereas the managemnet of CPA is simple, the managment of associated intestinal atresias is more complex. Every case should be managed individually. The overall prognosis of CPA, however, is still poor, and this is due to the frequent – and often fatal – associated anomalies.

REFERENCES

1. Müller, M., Morger, R., & Engert, J. (1990). Pyloric atresia: report of four cases and review of the literature. *Pediatric surgery international*, *5*, 276-279.
2. Achiron, R., Hamiel-Pinchas, O., Engelberg, S., Barkai, G., Reichman, B., & Mashiach, S. (1992). Aplasia cutis congenita associated with epidermolysis bullosa and pyloric atresia: the diagnostic role of prenatal ultrasonography. *Prenatal diagnosis*, *12*(9), 765-771.
3. Şencan, A., Mir, E., Karaca, I., Günşar, C., Şencan, A., & Topçu, K. (2002). Pyloric atresia associated with multiple intestinal atresias and pylorocholedochal fistula. *Journal of pediatric surgery*, *37*(8), 1223-1224.
4. Puri, P., & Fulimoto, T. (1988). New observation of pathogenesis of multiple atresia. *J Pediatr Surg*, 23, 221-225.
5. Ilce, Z., Erdogan, E., Kara, C., Celayir, S., Sarimurat, N., Senyüz, O. F., & Yeker, D. (2003). Pyloric atresia: 15-year review from a single institution. *Journal of pediatric surgery*, *38*(11), 1581-1584.
6. De Groot, W. G., Postuma, R., & Hunter, A. G. (1978). Familial pyloric atresia associated with epidermolysis bullosa. *The Journal of Pediatrics*, *92*(3), 429-431.
7. Ashcraft, K. W., & Holder, T. M. (2000). Pediatric surgery. 2nd ed. Philadelphia, PA: WB Saunders, p. 295.
8. Puri, P. Newborn surgery. 2nd ed. A Hodder Arnold Publication; j English j PDF j ISBN-10: 034076144X.
9. Peled, Y., Hod, M., Friedman, S., Mashiach, R., Greenberg, N., & Ovadia, J. (1992). Prenatal diagnosis of familial congenital pyloric atresia. *Prenatal diagnosis*, *12*(2), 151-154.
10. Moore, C. C. (1989). Congenital gastric outlet obstruction. *Journal of pediatric surgery*, *24*(12), 1241-1246.