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Letter to Editor

Esophageal Stenosis in Children: Retrospective Study of Unicentric Experience

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The typical etiology of esophageal stenosis (ES) is different in children and in adults [1]. ES may be seen after several conditions, such as esophageal atresia repair or corrosive ingestion in childhood [2]. In adults the most common cause of strictures are esophageal neoplasms, while in children the most common causes are complications of surgical treatment of esophageal atresia, or esophageal burns due to ingestion of caustic substances [1]. Esophagus injuries secondary to caustic ingestion occurs frequently in children [3]. In this study we report our experience in management of esophageal stenosis in children.

It's a retrospective study of esophageal stenosis between 2005 and 2017 in the department of pediatric emergency and reanimation and the department of pediatric surgery in the Hedi Chaker hospital in Sfax.

We had 24 patients with esophageal stenosis. In the 24 patients 13 were male. The median of age was 4 years 3 months (9 months to 14 years). The causes of stenosis were caustic esophagitis in 11, anastomotic stenosis in post-operative procedures for esophageal atresia in 6, peptic esophagitis in 4, eosinophilic esophagitis in 2 patients and one after battery ingestion (Table 1). The common symptom was dysphagia. Fibroscopy was made in 17 patients. Upper digestive tract gastrografin swallow was made in all patients. The stenosis was localized to the lower tier of the esophagus in 15 cases, the mean stenosis extent was 4.5 cm and the esophagitis was associated in 11 cases. 19 patients had esophageal endoscopic dilatation and the median of number of dilatation was 1.6 times (1 to 4 times). The median of follow up was 5 years (1 to 10 years). The fail of dilatation was noted in 2 patients and they were operated.

Causes of stenosis	Number
Caustic esophagitis	11
Post-operative for oesophageal atresia	6
Peptic esophagitis	4
Eosinophilic esophagitis	2
Battery ingestion	1

Table 1: *Causes of oesophageal stenosis.*

Esophageal stenosis (ES) is a severe condition leading to a decline in the quality of life of patients. The most important consequence of this clinical condition is failure to thrive because of impaired oral intake [4]. It is mostly seen after esophageal atresia repair or corrosive induced injury in childhood [2]. The etiology of ES in children is different from that in adults. In adult patients the leading causes of ES are gastroesophageal reflux disease and esophageal cancer [5]. In our study the caustic esophagitis was the first etiology then the esophageal atresia.

Several preventive and treatment modalities were evolved to manage the ES from surgical revision to esophageal dilatation [6]. Esophageal dilatation has been traditionally performed with bougies [6]. However, bougienage has a high risk of esophageal perforation (8 - 15%) because of its high shearing force. This shearing force usually ends up with dense scar formation, leading to lower success rate and

higher recurrence and perforation rates [2]. Recently, balloon dilatation has been used more commonly in the treatment of esophageal strictures, with a high success rate of 76 - 100% [2]. Endoscopic management of postsurgical esophageal strictures is usually sufficient and successful [7].

Endoscopic esophageal dilation is associated with low risk of complications. The most frequent potential complication is esophageal bleeding and the most serious is esophageal perforation [8]. The incidence of esophageal perforations is 0.1 - 0.4%, but there are some reports of much higher risk of perforation associated with balloon dilation, which may be over 20% [9]. In our study we don't had complication after dilatation we had only 2 cases of failure.

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