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Aorto-Mesenteric Clamp Syndrome: A Case Report

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Abstract **Case Report**

Aorto-mesenteric Clamp syndrome is a rare disorder. The diagnosis is clinical and then radiological. Treatment is first medical and then surgical in case of failure. The aim of this work is to focus on this pathology. An 18-year-old patient, who for a month and a half presented with early postprandial vomiting, associated with diffuse abdominal pain and constipation, all of this resulted in an inability to perform and a deterioration of the general condition of the patient along with an estimated weight loss of 10 kg. The clinical examination gave confusing results, the patient was hemodynamically and respiratory stable, but also cachectic, dehydrated, along with a distended, with the presence of epigastric bruising. The biological assessment showed u renal failure associated with fluid and electrolyte disturbances. ASP did not show any hydroaeric levels. Abdominal CT without and with PDC injection was in favor of aorto-mesenteric clamp syndrome (AMCS). Medical treatment was mainly symptomatic. Five days after its admission, the patient's neurological and respiratory status worsened and the patient required assisted ventilation. The patient passed away on Day 2 post-intubation.

Keywords: Aorto-Mesenteric hydroaeric.

INTRODUCTION

Aorto-mesenteric clamp syndrome (AMCS), also known as WILKIE syndrome, is a rare disorder that results from extrinsic compression of the third duodenum by the superior mesenteric artery (SMA) anteriorly and the aorta posteriorly.

In the presence of these favorable factors (severe malnutrition, lumbar spinal deformity, anatomical abnormalities), the syndrome diagnoses can be made. The treatment of this syndrome is first medical but resorting to surgery is necessary in case the treatment fails.

CASE PRESENTATION

An 18-year-old patient, with a mother previously treated for hemorrhagic recto colitis, who for a month and a half had early post-prandial bilious vomiting associated with diffuse abdominal pain and constipation, all of this resulted in an inability to perform and a deterioration of the general condition of the patient along with an estimated weight loss of 10 kg. The clinical examination gave confusing results, the patient was hemodynamically and respiratory stable, but also cachectic, dehydrated, along with a distended, sensitive, sonorous, with the presence of epigastric bruising. The laboratory results showed a high uremia at 1.30 g / l, creatinemia at 13 mg / l, hyponatremia at 111 mmol / l, hypokalemia at 2.50 mmol / l, normal blood count and hemostasis results. ASP did not show any hydroaeric levels. Abdominal ultrasound showed significant gastroduodenal dilatation without peritoneal effusion. The FOGD showed stage II esophagitis, biliary stasis at the gastric level, discrete interstitial gastritis, bulb, D1 and D2 dilated with biliary stasis. Abdominal CT without and with contrast injection was in favor of SPAM (Figure1).

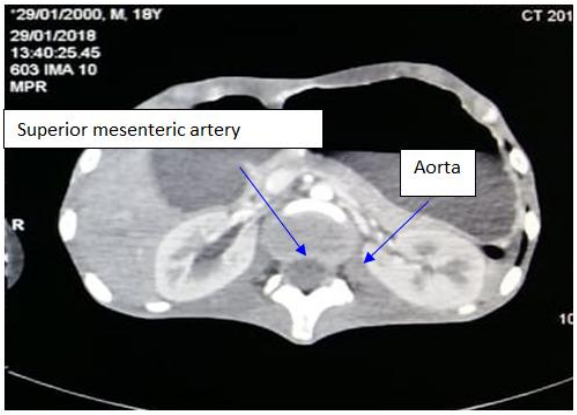

Fig-1: transverse CT scan section through the Third duodenal portion (D3) revealing the compression of the D3 by the superior mesenteric artery (SMA) on the aorta

Medical treatment with placement of a nasogastric tube bringing back 2l700ml of bile on the first day hydro-electrolytic intake and correction, anti-emetics, parenteral nutrition, gastric and thromboembolic protection. Five days after its admission, the patient's neurological and respiratory status worsened and the patient required assisted ventilation. Biologically, the patient's renal function worsened with a slight improvement in electrolyte disorders. Surgical due to the patient's hemodynamic and respiratory failure Surgical ECP was not performed, the patient passed away on Day 2 post-intubation.

DISCUSSION

Rokitanski first described SPAM in 1861 [1]. Whereas in 1927 Wilkie was able to describe its pathophysiology and treatment [2]. The incidence of this syndrome according to some studies ranges from 0.1 to 0.3%, but the true incidence remains unknown [3]. Its pathophysiology can be explained by the reduction of the inter-aorto-mesenteric space to less than 20° [4] (Figure 2).

Many factors contribute to significant weight loss. Malabsorption syndromes, trauma, burns, malignant diseases and AIDS are diseases often associated with SPAM [5]. In addition, the role of the so-called short Treitz ligament, trauma or surgery of the spine as contributing factors were also mentioned [6.7]. The patient's symptomatology can vary from acute symptoms to often more chronic symptoms [8]. In the acute form, patients may experience symptoms of duodenal obstruction. In the chronic form, patients may suffer from intermittent abdominal pain for years, accompanied by vomiting, early satiety and loss of appetite [9].

In 95% of all cases, the diagnosis is made through the injected abdominal CT scan. It helps identify a duodenal dilatation upstream of the obstacle [4].

The treatment is usually conservative (gastric suctioning, correction of fluid and electrolyte disorders and parenteral or enteral feeding). Postural maneuvers during meals may be helpful for some patients [10.11]. In case all of this fails, surgery is required. Duodenojejunostomy is the technique of choice with a rate of success reaching 90% [11].

CONCLUSION

Mesenteric aortic clamp syndrome is a rare and benign disease that can have serious consequences if left untreated or if treated too late. The injected abdominal CT scan remains the key examination to establish a diagnosis diagnose. The treatment is primarily medical but, in case of failure, surgery becomes necessary.

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