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CLINICAL CASE

Treating Gastric Antral Vascular Ectasia – When Argon Therapy Is Not Enough

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KEYWORDS
Endoscopy Gastrointestinal;
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Argon Plasma Coagulation;
Ligation

Abstract Gastric antral vascular ectasia (GAVE) is a capillary-type vascular malformation of the gastric antrum and an infrequent cause of chronic gastrointestinal blood loss and iron deficiency anemia.

The authors describe a case report of GAVE in a female cirrhotic patient presenting with severe symptomatic iron deficiency anemia. After failure of argon plasma coagulation (APC), the patient was treated with endoscopic band ligation (EBL) with resolution of anemia, without new episodes of rebleeding and no need for further hospitalizations or transfusion requirements.

Even though APC is the current treatment of choice for GAVE recurrence-free survival at one year is achieved in less than 50% of the patients and failed therapy has been described in up to 14% of the patients. EBL has been reported to be a relatively easy technique for GAVE therapy and has been shown to be safe and effective with lower complication rates in comparison with APC. This technique may in the future be used as the initial endoscopic treatment to eradicate GAVE.

PALAVRAS-CHAVE
Endoscopia Gastrointestinal;
Ectasia Vascular do Antro Gástrico;

Tratamento da Ectasia Vascular do Antro Gástrico – Quando a Terapêutica com Árgon É Insuficiente

Resumo A ectasia vascular do antro gástrico (GAVE) é uma malformação vascular e uma causa infrequente de anemia por défice de ferro. Os autores descrevem um caso de doente do sexo feminino com antecedentes de cirrose hepática alcoólica com diagnóstico de GAVE após estudo

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Coagulação Àrgon plasma;
Laqueação

etiológico de anemia ferropénica sintomática. Após falência do tratamento endoscópico com árgon plasma (APC), a doente foi submetida a laqueação elástica da GAVE com resolução da anemia, sem novos episódios de hemorragia e sem necessidade de re-internamentos ou suporte transfusional.

Apesar do APC ser o tratamento de primeira linha para a GAVE a taxa de doentes sem recorrência em um ano é alcançada em menos de 50% dos doentes, para além de falências primárias ao tratamento rondarem os 14%. A laqueação elástica tem sido descrita como uma técnica de fácil aplicação no tratamento da GAVE e tem-se revelado segura, eficaz e com baixa taxa de complicações em comparação com o APC. Esta técnica pode, no futuro, ser utilizada como tratamento endoscópico inicial para a erradicação da GAVE.

1. Introduction

Gastric antral vascular ectasia (GAVE) is a capillary-type vascular malformation of the gastric antrum[1] and an infrequent cause of chronic gastrointestinal blood loss and iron deficiency anemia. GAVE is responsible for up to 4% of non-variceal upper gastrointestinal (GI) bleeding and 6% of upper GI bleeding in cirrhotic patients.[2,3]

Most cases are idiopathic, but it is frequently associated with other clinical conditions, such as cirrhosis and autoimmune diseases,[4] with a prevalence reported in cirrhotic patients of 12%[3] and reaching 30% in patients with liver failure.[5]

At oesophagogastroduodenoscopy (OGD), GAVE may appear as multiple longitudinal streaks that converge at the pyloric orifice, with a ''watermelon'' pattern (stripe type), or as multiple erythematous spots (diffuse or granular type).[6] This last form occurring more frequently in patients with cirrhosis.[6]

The current treatment of choice for GAVE is endoscopic intervention with argon plasma coagulation (APC).[7] However recurrence-free survival at one year is achieved in less than 50% of the patients[8] and in addition rates of failed therapy of up to 14% have been reported.[3] Equally important to refer is the complication rate which is high (20–30%).[3]

The authors describe a case report of GAVE in a female cirrhotic patient presenting with severe symptomatic iron deficiency anemia. After failure of APC, the patient was treated with endoscopic band ligation (EBL) with resolution of anemia, without new episodes of rebleeding and no need for further hospitalizations or transfusion requirements.

2. Case presentation

A 69-years-old female presented with a three-week history of fatigue. She denied hematemesis and abdominal pain, and there was no change in appetite, weight, bowel pattern, or stool color. She had a medical history of alcoholic cirrhosis (Child Pugh A, MELD 7 points) and was on furosemide, had no known allergies and no family history of gastrointestinal pathology. She denied consumption of nonsteroidal anti-inflammatory and smoking habits.

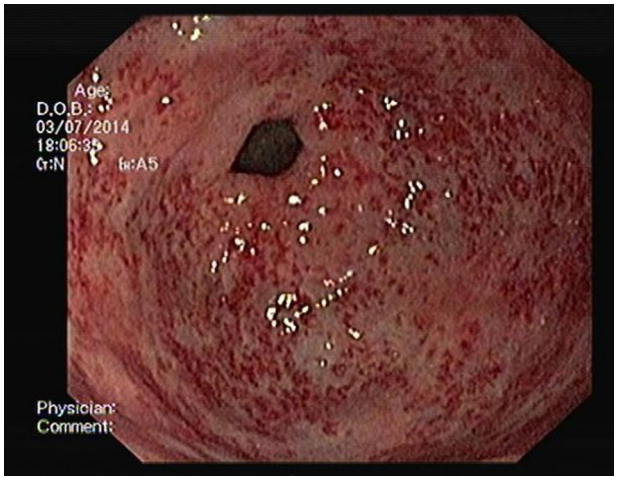

Figure 1 Gastric antral vascular ectasia.

Physical examination revealed paleness of the skin and mucosae and sinus tachycardia with normal blood pressure. Rectal examination did not reveal blood in stools.

Laboratory data evidenced severe anemia with hemoglobin level of 4.0 g/dL, low platelet count, normal coagulation parameters and inflammatory markers were normal. Iron study revealed a serum iron level of 14 μg/dL (reference range 50–170 μg/dL) with a total iron binding capacity of 398 μg/dL (reference range 250–450 μg/dL) and ferritin of 2.8 ng/mL (reference range 8–252 ng/mL). Transfusion of red blood cells was initiated with hemoglobin level increasing to 7.7 g/dL.

An OGD was performed and revealed multiple erythematous spots in the antrum compatible with GAVE, diffuse type (Fig. 1), and mild portal hypertensive gastropathy, without active bleeding. There was no evidence of esophageal or gastric varices. GAVE was treated with APC without complications (Fig. 2). A colonoscopy with ileoscopy was also performed, but it was negative for blood or hemorrhagic lesions. Her hemoglobin levels remained stable and the patient was discharged and started on propranolol (for portal hypertensive gastropathy), with a target of 55 beats