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A Case Study of Unusual Upper Gastrointestinal Bleeding: Diuelafoys lesion, Alcohol and Pancreatitis

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Abstract

Initial gastrointestinal endoscopy is effective in diagnosing up to 70% of patients. Several endoscopies may be required with 6% of patients, requiring three or more to establish the diagnosis. Angiography and/or red cell scanning can be used when endoscopy fails to diagnose a doubtful case. The mortality rate has decreased dramatically due to advancement in both diagnostic and therapeutic tools. This is a report a 36-year-old male, presented with recurrent hematemesis and melena, and diagnosed endoscopically with diuelafoy lesion. He was successfully treated with epinephrine injection and argon plasma coagulation.

Keywords: Diuelafoy, Gastrointestinal bleeding, Hematemesis, Melena, Alcohol.

دراسة حالة حول نزف دموي غير اعتيادي لقناة الجهاز الهضمي العلوي: آفة ديولا فوي، الكحول و التهاب البنكرياس

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ملخص الدراسة

منظار الجهاز الهضمي فعال في اكتشاف وتشخيص أكثر من 70% من المرضى. ربما يتطلب الأمر تكرار عمل المنظار و6% بحاجة الى ثلاثة مناظير أو أكثر للتشخيص الصحيح. التصوير أو المسح الوعائي ممكن يستخدم عندما يفشل المنظار لإيجاد التشخيص. معدل الوفاة نقص بشكل فعال بتطور التشخيص الصحيح والعلاج. دراسة الحالة هذه لرجل عمره 36 سنة لديه إقياء دم متكرر وإخراج ميلينا تم تشخيصه إصابة ديولا فوي وعولج بنجاج بواسطة المنظار بالحقن الأدرنالين والكي بالأرجون.

الكلمات المفتاحية: آفة ديولا فوى، نزيف القناة الهضمية، التقيؤ الدموى، التبرز الدموى، الكحول.

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Introduction

Initial gastrointestinal (GI) endoscopy is effective in diagnosing up to 70% of patients. Several endoscopies may be required with 6% of patients, requiring three or more to establish the diagnosis [1]. Angiography and/or red cell scanning can be used when endoscopy fails to diagnose a doubtful case. It was reported that mortality rate has decreased dramatically due to advancement in both diagnostic and therapeutic tools [2,3].

Obscure GI-bleeding is reported to account for up to 5% of all GI haemorrhages. It is defined as overt or occult bleeding from a source that cannot be readily determined by standard investigations, such as barium studies and endoscopic investigation. The source is often difficult to locate because the pathology is usually anatomically inaccessible, small, or subtle. Diuelafoy's lesion is one of the causes of obscure gastrointestinal bleeding that could result in treacherous and life-threatening gastrointestinal haemorrhage [1-3].

Case Presentation

Thirty-six years old male, history of heavy smoking, recurrent abdominal pain, sometimes radiating to the back, loss of weight, recurrent melena and/or hematemesis and anemia reached to 2.8 g %. He was treated in 4 different hospitals in Riyadh, Kingdom of Saudi Arabia with recurrence of the bleeding during the last 4 years mostly melena. appendectomy done before 3 years. There was difficulty to find peripheral veins for transfusion and for intravenous contrast media for CT-scan.

Repeated esopha-gogastro-duodenoscopies (EGD) showed various lesion descriptions as: duodenal ulcer, mass like lesion, gastric lesion looks like a polyp or ulcer or fundal varices with bleeding, injected with adrenaline for suspected duodenal ulcer. On May 2018, there was repeated attacks of melena with dropping of hemoglobin to 3.4 g%. On EGD there was finding of bleeding (oozing) gastric lesion on the lesser curvature suspected to be Diuelafoys lesion as shown in Figures (1) and (2). Adrenaline injection done followed with argon plasma coagulation. The melena stopped and follow up showed no hematemesis and melena with stable hemoglobin for 1 year.

Ultrasound of abdomen showed fatty liver with mild splenomegaly. CT-abdomen with contrast and CT-angiography showed signs of pancreatitis and marked collaterals in the perigastric region, in spleno-renal ligament and at gastroesophageal junction with thick walls of stomach and duodenum. There was generalized atrophy of the pancreas. No signs of any vascular pseudoaneurysm or varices and no active bleeding. He was successfully treated with epinephrine injection and argon plasma coagulation (APC).

Figure 1: Mass or Polyp-Like Lesion On Gastric Wall

Figure 2: Suspected Duodenal Ulcer Injected

Discussion

A Diuelafoy's lesion [4], is a relatively rare, but potentially life-threatening cause of haemorrhage from the gastrointestinal tract. It is difficult to determine its true incidence in the general population accurately as they are silent until presentation and, even then, it can pose a diagnostic challenge. They are believed to account for only 1–2% of acute GI bleeding [4,5]. They are found more commonly in adults with co-morbidities and in men twice as frequently as women [4].

Criteria to diagnose a Diuelafoy lesion [6] are defined as the lesion having: (1) active arterial “spurting” or “oozing” from a small defect in the mucosa (<3 mm); (2) a visible, protruding vessel from a normal or slight defect in mucosa; and/or (3) a fresh blood clot adhering to the defect of normal mucosa. Seventy percent of the lesions are found in the stomach, usually along the lesser curvature, with more than 80% found within six cm of the gastro-esophageal junction.

Co-morbidities are present in 90% of patients [7,8]. The consensus is that there is some form of mucosal erosion or ischaemic injury that is possibly related to ageing, alcohol, nonsteroidal anti-inflammatory drug (NSAID) or cardiovascular disease which further weakens an intrinsically vulnerable point and unmasks the silent anomaly. Risk factors for rebleeding after endoscopic therapy include administration of NSAIDs, administration of anticoagulants and Diuelafoy’s lesions with actively spurting blood at the time of initial endoscopy [9-12].

In the present case, the clinical features of patients with Diuelafoy lesion were similar to that of previous cases, one feature did not mention before is a generalized vessel narrowing that manifested by delay in findings veins and using the central veins even for intravenous contrast (with high risk consent). The risk factors were history of heavy alcohol drinking, man sex and pancreatitis.

As in this case repeated endoscopy is usually necessary and surgical management is indicated when the lesion fails to respond to therapeutic endoscopy. Surgical intervention was arranged after the second trial of endoscopic haemostasis (adrenaline injection and APC), but fortunately the melena was stopped and the hemoglobin was increased, patient was stable and discharged with no more bleeding in the follow-up for six months.

Conclusion

Upper GI bleeding is a common medical emergency and endoscopy remains the primary diagnostic investigation. However, reliance on endoscopy alone may miss a potentially life-threatening diagnosis. Awareness and careful endoscopy are essential for the diagnosis and repeated endoscopies may be necessary to establish the diagnosis.

Although uncommon, Diuelafoys lesion should be considered and investigated using CT imaging especially if upper GI endoscopy is normal or was not enough to explain the bleeding.

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