

# INTRADUODENAL AND RETROPERITONEAL HEMATOMA AFTER DUODENAL BIOPSIES

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## Abstract

We present the case of a 20-year-old male with no previous history of interest who developed an intraduodenal and retroperitoneal hematoma in the context of an oral endoscopy with duodenal biopsies due to abdominal pain and chronic diarrhea. The evolution with conservative treatment was favorable and ultrasound controls were performed until resolution. Intraduodenal hematomas are lesions that are usually observed in children after blunt abdominal trauma or in patients with risk factors, being infrequent as a complication after diagnostic or therapeutic endoscopic procedures. Their management is mainly conservative and in case of absence of improvement or perforation, surgery is indicated.

**Keywords:** intraduodenal hematoma, retroperitoneal hematoma, duodenal biopsies.

## Introduction

Intramural duodenal haematomas (IDH) are infrequent lesions that are usually seen in children after blunt abdominal trauma or in patients with underlying risk factors such as

coagulation disorders or anticoagulant therapy<sup>1,2</sup>. They can also, but rarely, occur as a complication of endoscopic diagnostic and therapeutic procedures, even in the absence of these risk factors<sup>2,3</sup>.

## Clinical case

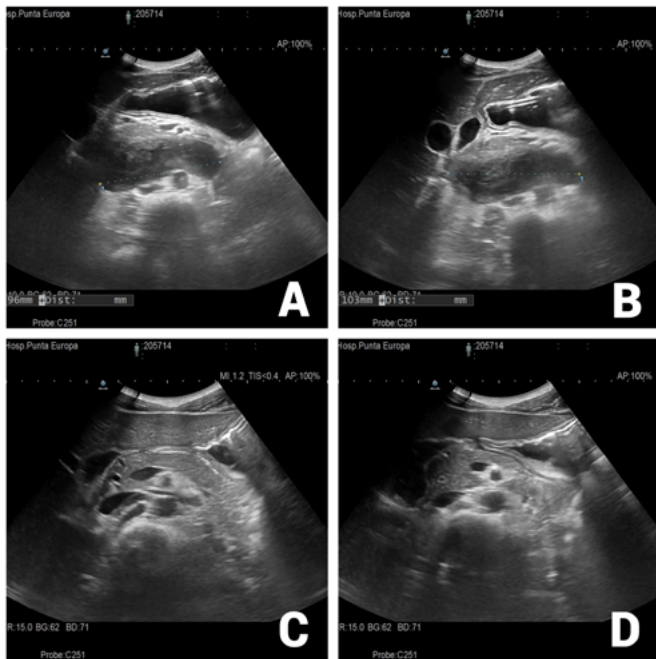
The patient was a 20-year-old male with no previous history of interest who began an outpatient study due to abdominal pain and chronic diarrhoea, for which reason oral endoscopy was performed and duodenal biopsies were taken with standard forceps. However, approximately 8-12 hours after the endoscopy, he began to experience intense epigastralgia which required an urgent abdominal CT scan and a collection measuring 12x6x10 cm compatible with haematoma was found in the duodenum and right retroperitoneum. During hospitalisation, an abdominal ultrasound scan was performed (**Figure 1**) with views to subsequent check-ups. A conservative treatment was decided in conjunction with surgery and the clinical, analytical and ultrasound evolution was favourable with this treatment. Finally, he was assessed by haematology,

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RAPD 2024;47(3):123-124. DOI: 10.37352/2024473.4

## CLINICAL CASE

ruling out haematological disease or underlying coagulation disorder.



**Figure 1.** A and B correspond to ultrasound images obtained during admission where a dilated gastric chamber is identified, as well as a mass with heterogeneous and hyperechogenic content, bean-shaped morphology and caudal location to the pancreas compatible with retroperitoneal haematoma. C and D are the outpatient controls after discharge where the haematoma is no longer identified.

## Discussion

Upper endoscopy is a common procedure with few complications, most commonly bleeding, perforation and sedation-related complications, with the occurrence of IDH being very rare<sup>2</sup>. Traction of the duodenal mucosa with the endoscopic forceps during biopsy may separate a considerable area of the duodenal mucosa from the duodenal wall, tearing the intramural vessels. Therefore, it has been suggested that the endoscopic forceps should not be advanced more than 3 cm beyond the tip of the endoscope to grasp the mucosa in order to minimise shearing<sup>2,4</sup>.

Symptoms of IDH include abdominal pain and vomiting which usually appear within 48 hours of biopsies, although they can appear up to seven days later<sup>1,2</sup>. It can also lead to cholestasis or acute pancreatitis due to obstruction of the duodenal papilla<sup>1</sup>.

Laboratory findings are non-specific and show decreased haemoglobin concentration<sup>1</sup>. A summary diagnosis can be made by imaging (ultrasound, CT or MRI) or endoscopy<sup>1,2</sup>. Ultrasound

findings are variable and include a thickened hypoechoic duodenal wall, a mass close to the duodenum of variable echogenicity, a paravertebral cystic lesion simulating a pancreatic pseudocyst and a polypoid lesion within a distended loop of bowel, sometimes making it difficult to diagnose this entity by this technique. In addition, the echogenicity of the haematoma changes substantially over time and may resemble an abscess, showing internal echoes in some cases<sup>3,5</sup>. However, once the diagnosis has been made, ultrasound may be used for the follow-up of patients with IDH, as it is available in most centres and avoids the use of ionising radiation<sup>1,5</sup>.

Treatment is conservative in most cases, consisting of fasting, serotherapy and nasogastric aspiration<sup>1,2</sup>, with resolution of IDH occurring one to three weeks after onset<sup>1,6</sup>. In the event of perforation or lack of improvement with conservative management, surgery is indicated<sup>1,2</sup>.

## Bibliography

1. Grasshof C, Wolf A, Neuwirth F and Posovsky C. Intramural Duodenal Haematoma after Endoscopic Biopsy: Case Report and Review of the Literature. *Case Rep Gastroenterol.* 2012;6:5-14.
2. Samra M, Al-Mouradi T and Berkelhammer C. Gastric Outlet Obstruction due to Intramural Duodenal Hematoma after Endoscopic Biopsy: Possible Therapeutic Role of Endoscopic Dilatation. *Case Rep Gastroenterol.* 2018;12:692-698.
3. García-Espinosa, J, Martínez-Martínez A and Medina-Benítez A. Hematoma intramural duodenal secundario a tratamiento en paciente con enfermedad hematológica. *RAPD Online.* 2017;40(4):189-192.
4. Zinelis SA, Hershenson LM, Ennis MF, Boller M and Ismail-Beigi F. Intramural duodena hematoma following upper gastrointestinal endoscopic biopsy. *Dig Dis Sci.* 1989;34(2):289-291.
5. Antoniou D, Zarifi M and Gentimi F. Sonographic Diagnosis and Monitoring of an Intramural Duodenal Hematoma following Upper Endoscopic Biopsy in a Child. *Journ of Clin Ultras.* 2009;37(9):534-538.
6. Irisarri-Garde R and Vila-Costas JJ. Duodenal hematoma caused by endoscopic hemostatic proceduras (sclerotherapy). *Rev Esp Enferm Dig.* 2017;109(9):666-667.