Case	(416) Transarterial embolization of abdominal wall hematoma after abdominal paracentesis.
Authors	A. Lozano Santamaría, X. Leunda Ayastuy, A. Salazar Salgado, G. Vega Muñoz, J. Pedrosa Arroyo, J.I. López Martínez.
Centre	Hospital Universitario De Burgos.

CASE PRESENTATION

A 54-year-old woman with cirrhosis secondary to hepatitis C infection and ascites, started with severe pain on right lower quadrant of the abdomen. 2 days before she had undergone abdominal paracentesis to evacuate the ascites. Hemoglobin had fallen to 7.1 mg/dl.

On ultrasound examination a 5,5 cm sized heterogeneous collection was observed on the right lower quadrant of the abdominal wall. Contrast enhanced CT showed right rectus sheath hematoma with active bleeding. The treatment proposed for this patient was the embolization of the bleeding vesssel.

Selective catheterization of the right inferior epigastric artery was realized using a 2.7F catheter, and the angiogram showed active bleeding from lateral branches of this vessel. The inferior epigastric artery was embolized using liquid material (Squid).

The angiogram after the embolization showed absence of flow in the epigastric artery and no ongoing bleeding focus. Two days after the embolization, the pain improved and hemoglobin rose from 7.1 mg/dl to 8.0 mg/dl.

DISCUSSION

Abdominal wall bleeding occurs in less than 1% of the patients who undergo abdominal paracentesis.

However, it tends to be more important in people who have coagulation disorders, such as those who appear in cirrhotic patients1. When the hemorrhage affects the inferior part of the abdominal rectus, the vessel wich is usually damaged is the inferior epigastric artery or its terminal branches.

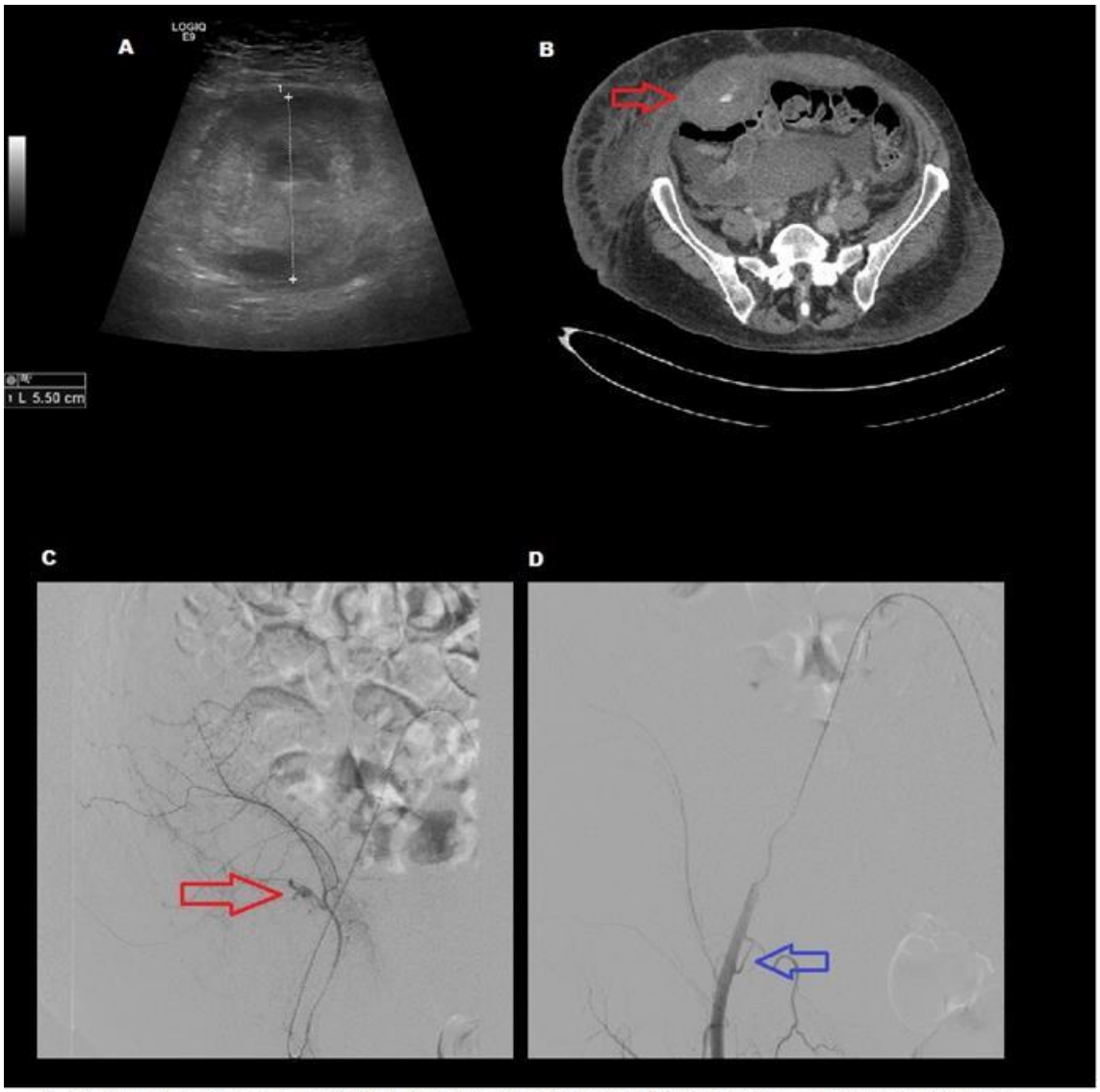
The epigastric artery is located in the posterior surface of the abdominal rectus. Conservative treatment is usually succesfull in patients with abdominal wall bleeding after paracentesis. In those patients in whom bleeding does not stop or in whom hematoma extends to the prevesical space, embolization can be an adequate therapy.

To embolize the epigastric artery, it is usually accessed by the contralateral femoral artery with a catheter of 5F until it reaches the external iliac artery, to then perform a superselective catheterization of the affected epigastric artery with a 2.7F catheter.

Different materials of embolization can be used, using in this case liquid material based on tantalum.

CONCLUSION

In iatrogenic bleeding after performing abdominal paracentesis, embolization after selective catheterization of the affected vessel is a safe method of treatment in those patients in whom bleeding persists despite conservative treatment.



A. US show a heterogeneous collection in the lower abdominal wall. B. Contrast enhanced CT reveals right rectus heamtoma with contrast extravasation, wich means active bleeding (red arrow). C. Angiogram shows leak of contrast (red arrow) that correspond with the bleeding point that comes from a lateral branch of the inferior epigastric artery. D. Post-embolization angiogram shows absence of flow of the inferior epigastric artery (blue arrow). Active bleeding is not observed.

BIBLIOGRAPHY

- Funaki B. Embolization iatrogenic hemorrhage after paracentesis. Seminars in Interventional Radiology 2008; 25(3): 329-333.

- Park YJ, Lee SY, Kim SH, Kim IH, Kim SW, Lee SO. Transcatheter coil embolization of the inferior epigastric artery in a huge abdominal wall hematoma caused by paracentesis in a patient with liver cirrosis. Korean Journal of Hepatology 2011;17(3): 233-237.