

Transhepatic embolization of gastroesophageal varicose veins in patients with acute bleeding

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“Regional Clinic #2”

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Disclosure

Speaker name: Oganés Oganésyan

I have the following potential conflicts of interest to report:

- Consulting
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

- I do not have any potential conflict of interest

Relevance of the topic

- ✓ Varicose gastroesophageal bleeding is frequent complication of hepatic cirrhosis
- ✓ Mortality after first episode of varicose gastroesophageal bleeding can be 30-50%
- ✓ Conservative and endoscopic methods of treatment often are not effective
- ✓ Urgent TIPS in acute bleeding is rare and challenging procedure

Design

Inclusion criteria

- ✓ Bleeding from gastroesophageal varicose veins
- ✓ Ineffective conservative and endoscopic treatment

Exclusion criteria

- ✓ Thrombosed portal vein

Methods and sources

- ✓ 20 patients
- ✓ male – 11, female – 9
- ✓ Age $55,1 \pm 15,6$
- ✓ Child-Pugh A – 0, B – 12 (60%), C – 8 (40%)
- ✓ First episode of bleeding – 16 (84,2 %) patients
- ✓ Anemia (Hb $80.2 \pm 13,8$ g/l)
- ✓ Thrombocytopenia (pt $94\ 000 \pm 32\ 000$)
- ✓ Blood infusion in all cases
- ✓ Conservative therapy (Resuscitation treatment + Blackmore balloon) was not effective in 100% cases
- ✓ Endoscopic treatment was not effective in 100% cases

Technique

1. Puncture of intrahepatic part of portal vein using local anesthesia (right lobe better)
2. Introducer 5F insertion
3. Gastroesophageal veins selective catheterization (0'035 hydrophilic wire, 5F catheter)
4. Embolization with 0'035 coils (pushable)
5. Hemostasis of liver channel by hemostatic sponge (not always)

Technical aspects

- ✓ Technical success – 17 (85%) patients
- ✓ Puncture failure – 3 (15%) cases
- ✓ Operation time 20 ± 5 min
- ✓ Contrast 50 ± 20 ml
- ✓ 2 ± 0.9 veins per patient
- ✓ 3.9 ± 2 pushable 0'035 coils per patient

Procedural complications

- ✓ 2 (10%) cases
 - a) varicose vein rupture – additional coil
 - b) hepatic artery puncture – no consequences

Results

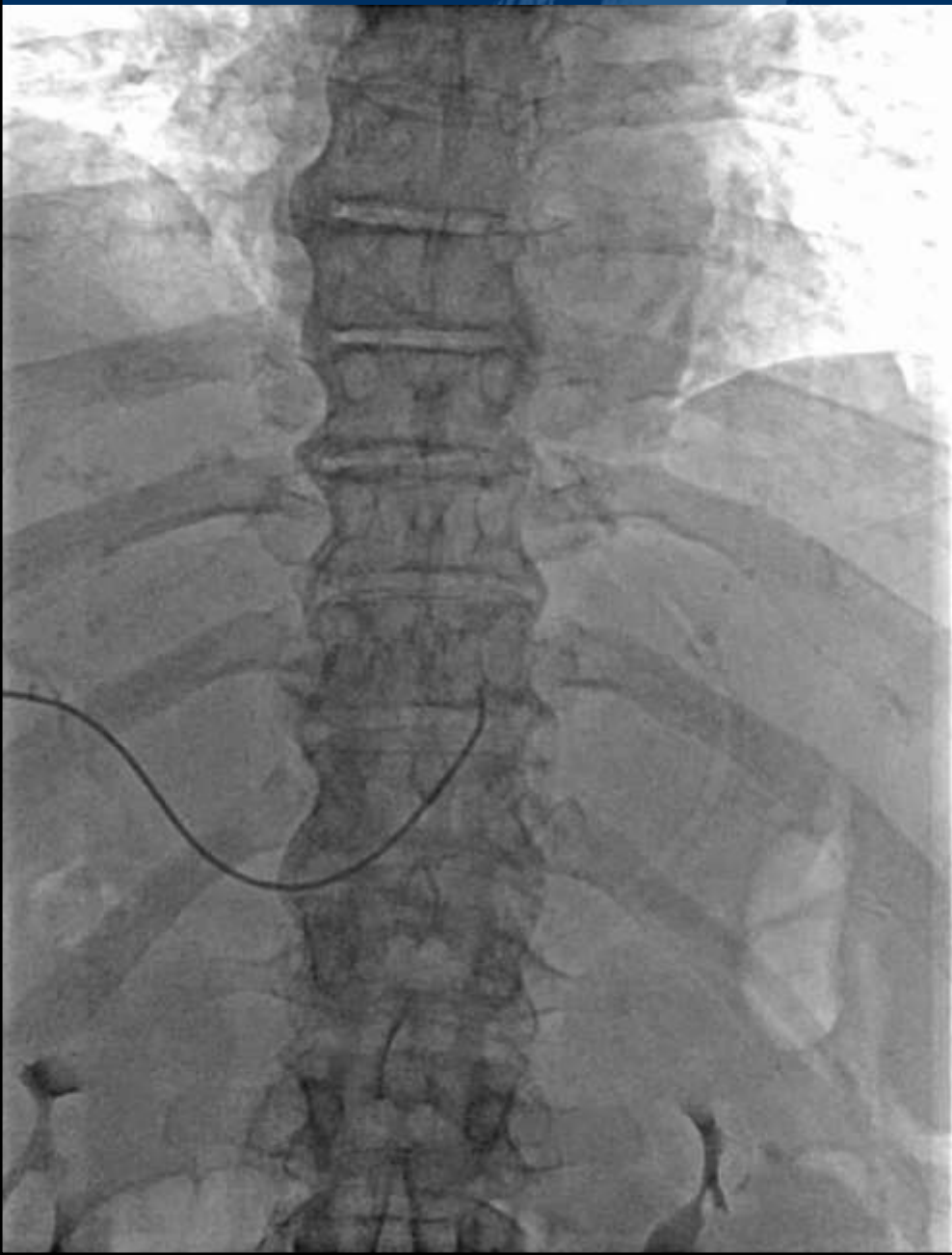
- ✓ Angiographic occlusion in all (n=17) cases
- ✓ Mortality – 3 (17.6%) due to polyorganic insufficiency progression
- ✓ Repeat bleeding – 2 (11,8%) cases
 - a) TIPS
 - b) repeat transhepatic embolization of the missed varicose vein
- ✓ Clinical improvement in 12 (70,6%) cases

Conclusions

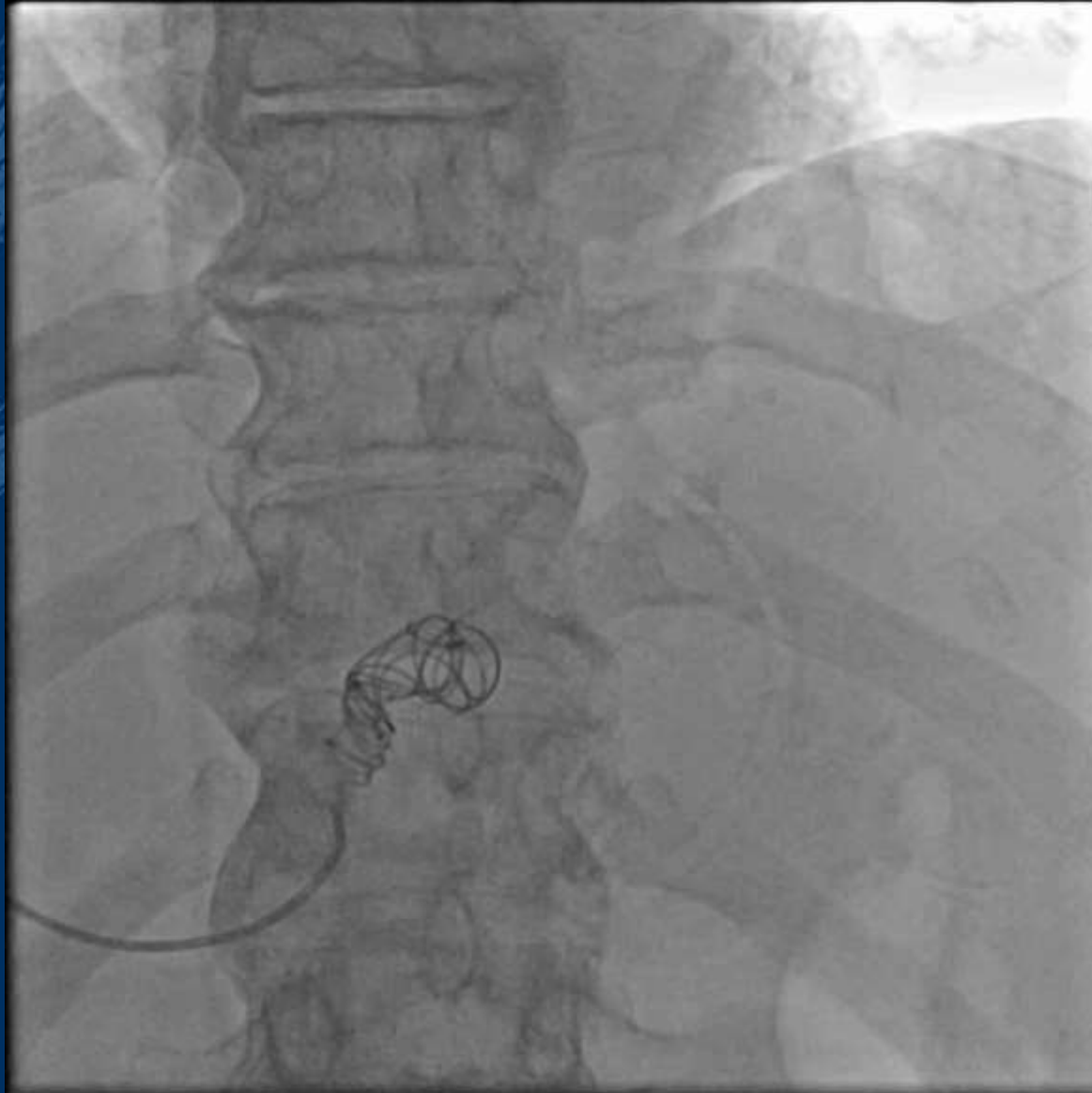
- ✓ Stops the bleeding
- ✓ Fast and simple procedure
- ✓ Can be done in severe patients
- ✓ Can be “night” procedure
- ✓ Low complication rate
- ✓ Gives time to stabilize patient and to prepare for planned TIPS/transplantation
- ✓ Transhepatic embolization \neq TIPS

Example

- ✓ Male, 40
- ✓ Sunday admission (transfer from local clinic)
- ✓ 1-st episode of gastroesophageal varicose bleeding
- ✓ Ineffective treatment (conservative + endoscopic) during 2 days in local clinic
- ✓ Unstable hemodynamics (BP 90/50, adrenalin)
- ✓ Twice blood infusion
- ✓ Bad blood tests – anemia (Hb 70 g/l), thrombocytopenia (pt 90 000), coagulopathy



Pushable coils 20x200 mm(x2)





Thank you for attention

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