Challenging retrograde embolization to treat expanding internal iliac aneurysm

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**Introduction**: After surgical or endovascular aortic aneurysm repair a persistent preexisting internal iliac aneurysm may continue to grow leading to a challenging solution once there is no direct aneurysm access.

**PAST MEDICAL HISTORY:**
- ♂, 77 Y
- Abdominal aortic aneurysm (AA A) 5.5 cm Ø, Internal Iliac Aneurysm (IIA) 6.4 cm Ø
- 2012 Aortobifem surgical bypass (ABF), proximal and distal ligation (external iliac artery)
- 18 months later: abdominal pain+ haematuria+ hypotension + ↓ 2 g Hb

**Pic 1.** Angio-CT: IIA 10.0 cm Ø, not excluding rupture.

**Pic 2.** Initial angio showing contrast leakage in the IIA and its dependence collateral chains:
- A. medial femoral circumflex (MCFA**) with obturator (o) artery.
- Lateral femoral circumflex (LFCA*) with sup gluteal (●).

**Pic 3. 1st procedure:**
- Left brachial access.
- Selective catheterization of the profunda femoral artery + Supraselective MCFA catheterization (microcatheter 1.5 F);
- Onyx® embolization

**Pic 4. 2nd procedure:**
- Femoral contra-lateral access
- Onyx was injected after MP crossover of ABFB trough microcatheter of LCFA.

**RESULTS:**
- Patient underwent successful embolization of both arteries close to aneurysm sac.
- Completion angiography didn’t show any apparent residual endoleak.
- Shrinkage 8.6 cm Ø at 6th month follow up

**Discussion/Conclusion:** IIAAs may grow and rupture after exclusion, leading to challenging decision and treatment. Multiple collateral pathways between the femoral and the internal iliac artery can be embolized with a wide range of materials. This is a feasible technique, with minimal surgical aggression and low complication rate with few cases reported in literature.