Retrograde Access to Target Arteries: A Bail-out Procedure when Prograde Branch Catheterization does not work

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Case 1
Rule: Flairing of stents: top to bottom

Solution: left lumbotomy
Case 2: Small Renal Arteries
Solution: Laparotomy
- Secondary procedure
- Retrograde access of both renal arteries
- Snaring
- Insertion of bridging stent-grafts

Case 3: Difficult Angle for LRA
Solution: Lumbotomy
Case 4: Branch Celiac too low.....
Solution: retrograde approach via Hepatic Artery

Case 5: Technical Mistake.....
Solution: retrograde via Hepatic A.

The principle...
SMA targeted with branch originally intended for CA
CA orifice is higher than the remaining branch

The principle...
Retrograde Wire via Puncture of hepatic Artery
Snaring through fenestration via Axilla

The principle...
Deployment of Atrium Stent
Sheath advancement through wire traction

Case 6: Planning Mistake
Problem: occlusion of SMA by Graft

Solution: Laparotomy and Retrograde Approach via SMA

How Often Does It Happen?
- FEVAR for complex AAA \( \text{Retrograde Approach} \ 3 \ (0.6\%) \)
- TAAA \( \text{Retrograde Approach} \ 10 \ (4.0\%) \)
- TOTAL \( \ 13/754 \ (1.7\%) \)

Reason?
- Anatomical \( N=6 \)
- Technical Mistake \( N=5 \)
- Planning Mistake \( N=2 \)

Technique?
- Retroperitoneal Approach for LRA: \( N=7 \)
  RRA: \( N=1 \)
- Laparotomy for both LRA + RRA: \( N=1 \)
- Laparotomy for CA: \( N=3 \)
- Laparotomy for SMA: \( N=1 \)

Retrograde Puncture Results
- Technical success in 12/13 cases
- Perioperative Mortality 1/13
  – MOF on 8th post-operative day
- Mean admission \( 17 \pm 7 \text{d} \)
### Retrograde Puncture

#### Major Complications

- Renal: N=2
- Wound Dehiscence: N=2
- Retroperitoneal Hematoma: N=1
- Respiratory: N=1

#### Follow-Up

- One related Death (Uraemia @ 2 months)
- One Reintervention (Distal extension)

### Conclusions

- Feasible
- Higher morbidity
- Longer hospital stay