"ReBel-B" technique to prevent Type 2 endoleaks during treatment of isolated common iliac aneurysm or during EVAR

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Disclosure

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I have the following potential conflicts of interest to report:

☒ I do not have any potential conflict of interest
The treatment of patients with common iliac aneurysms (CIAs) may be very challenging due to the complexity of the underlying disease with often involvement of the hypogastric artery.

Intentional occlusion of the internal iliac artery (IIA) to create a distal landing zone in the external iliac artery (EIA) is a common approach with inherent morbidity (e.g., buttock claudication, impotence). In case of monolateral IIA occlusion, as derived also from surgical experience, this morbidity often tends to resolve spontaneously after few weeks.
Additionally, the variety of endovascular therapeutic options such as the use of iliac branch devices, parallel grafts, or coil embolization of the hypogastric artery and overstenting of the origin represents significant limitation regarding costs and duration of procedure particularly in emergency setting. The bell-bottom technique is an alternative to save hypogastric artery.
Objective:

✓ To report our preliminary experience with a new technique of reversed bell bottom endografting (ReBel-B) to prevent type 2 endoleak from the internal iliac artery (IIA) during both elective and urgent endovascular treatment of isolated common iliac artery aneurysm (CIAA) or during endovascular aneurysm repair (EVAR) of abdominal aortic aneurysms (AAAs) associated with distal CIAA.
Reverse Bell-Bottom Technique: “ReBel-B”
“ReBel-B” during EVAR:
“ReBel-B” from contralateral access:
Results:

- 4 patients not suitable for hypogastric artery preservation underwent ReBel-B procedure (3 elective and 1 urgent procedure).
- 2 isolated CIA aneurysms (1 through an antegrade cross-over approach from controlateral femoral access); 2 AAA, 1 in urgency.
- Local Anestesia and Percutaneus access except in urgency.
- Post-operative course was uneventful in all patients and no complications were observed at 30-days. At 30 months follow-up the CT scans showed no endoleaks with complete exclusion of CIA and thrombosis of IIA.
Pre-op CT:
Pre-op CT:
Post-op CT: ReBel-B
Post-op CT: ReBel-B
Intra-op Angio: ReBel-B + EVAR
Conclusion:

This new technique is useful in preventing type II endoleak from IIA as an alternative to embolization and branched / parallel endograft when not anatomically feasible. It can also be performed and useful in emergency settings.
THANK YOU