Low-profile polymer-based endografts (Ovation) implantation and T2EL incidence and fate in an unselected population

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Objectives:
The aim of this paper was to evaluate the type II endoleak (T2EL) incidence after endovascular aneurysm repair (EVAR), in patients treated by Ovation stentgraft (Endologix).

Results:
81.9% of patient were male. Mean AAA diameter was 57.17mm.
110 patients (42.1%) presented an AB diameter ≤18mm, 119 (45.6%) an EIA ≤5mm, 18 (6.9%) an EIA stenosis >70 and 38 (14.6%) an ITR ≤0.5.

Technical success was achieved in all cases. At completion angiography, 57 T2EL were evident (21.8%).

At 30-day follow-up scheduled CTA showed 33 T2EL (12.6%) and at 12-month CTA, T2EL was confirmed in 11.1% of patients (29/261).

At mean follow-up (30.14±18.46 months) T2EL was still evident in 9.1% of patients, and 3 T2EL-related reinterventions were observed.

Regarding anatomical preoperative characteristics considered as potentially influencing outcome, in no case a statistically significant difference was observed between patient presenting or not T2EL (p>0.05).

Material and Methods:
A retrospective study conducted on three high-volume Italian Vascular Centers. 261 consecutive patients were included. Outcome measures were intraprocedural, immediate (30-day) and mid-term T2EL incidence, and related reintervention. Presence of a narrowed aortic bifurcation (AB), external iliac artery stenosis, EIA diameter ≤5mm, and iliac tortuosity ratio (ITR) ≤0.5 were reported, and considered as independent factors potentially influencing outcome.

Conclusion:
Our experience, in contrast with previous reported paper (Ovation Pivotal Study and Innovation Registry) showed a relative low incidence of T2EL after Ovation endografts implantation, even at mid-term follow-up.