

Reintervention for Failed Endovascular Aneurysm Repair: Open Conversion Is Almost Never Needed

NOTES

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Background

Secondary interventions still remain an important limitation for a widespread use of endovascular repair of abdominal aortic aneurysm (EVAR).^{1,2}

Open conversions have been related to a high mortality rates.³ To avoid any kind of reoperation, especially, open conversions, would be an optimal goal for EVAR therapy.

Purpose

The purpose of this study was to analyze the prevalence, incidence and types of the secondary interventions without open conversions during 8-year surveillance of the elective EVAR.

Patient and Methods

We select the first consecutive 300 abdominal aortic aneurysms (AAAs) repaired electively by means of different brands of endografts. All of them were followed according to the EUROSTAR recommendations. The mean follow-up was 38 ± 14 months (r: 3–94 months). The mean AAA diameter was 58.8 ± 10.76 mm (r: 30–100 mm). Up to 40% of these patients were considered unfit for open repair due to serious comorbidities.

Results

Thirty secondary interventions have been performed that represents a 10% prevalence and an incidence of 3.2 reinterventions per year. Endoleak was the most common complication that required a reintervention (endoleak type I: 3; endoleak type II: 7; endoleak type III: 7; migrations: 6; AAA rupture: 3; branch thromboses: 3; endotension: 1 case). Most part of reinterventions was related to Vanguard endografts ($p < .001$). The thrombus presence in the anchorage area and the break of the stents has been significantly related with the reoperation necessity. Cumulative freedom of secondary intervention up to 8 years was 72%. All the reinterventions were approached endovascularly, except for two limb thromboses that were solved with an extra-anatomic bypass. No open conversion was needed. No mortality was related to the reoperations.

Conclusions

Secondary intervention still limits the widespread use of EVAR. Most secondary procedures are needed beyond the 2-year follow-up. However, no mortality was related to reinterventions over 8-year-follow-up. The presence of thrombus on the neck, stent fractures, and first generations of endografts are risk factors for reintervention. Strict surveillance avoids major complications. A multidisciplinary and dedicated approach reduces fatal complications. Further technologic improvements are needed to reduce the actual reintervention rates.

References

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