Ten Years of FEVAR/BEVAR in Tromsø: Trends, Outcomes, and Evolving Practices
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Background

Over the past decade, fenestrated and branched endovascular aortic repair (FEVAR/BEVAR) has advanced significantly. This study evaluates ten years of data from UNN Tromsø, focusing on survival, intervention-free survival, spinal cord ischemia rates, and procedural evolution, with particular attention to institutional strategies that have improved outcomes.

Methods

We retrospectively analyzed all FEVAR/BEVAR procedures performed at our institution from 2015 to 2025. Data included patient demographics, procedural details, survival, reintervention rates, spinal cord ischemia incidence, contrast usage, radiation exposure, and operative trends. Stent configurations, bridging stent selection, and the transition from surgical femoral access to a fully percutaneous approach were assessed. Indicators of institutional maturity, such as operative times and pre-/postoperative changeover times, were also analyzed.

Results

Among 130 patients, survival and intervention-free survival improved significantly. Early procedural challenges, including higher contrast usage, radiation exposure, and spinal cord ischemia rates, reflected the learning curve. Advancements in patient selection, device selection, deployment strategies, and institutional policies led to reduced complications, shorter operative times, and a marked decline in spinal cord ischemia. The shift to fully percutaneous access further significantly reduced access complications. Contrast volume and radiation exposure also decreased, improving safety.

Conclusion

The early years of FEVAR/BEVAR at our institution were marked by the challenges inherent in adopting complex endovascular techniques. However, through continuous refinement of strategies, procedural efficiency, and complication management—particularly in spinal cord ischemia prevention—significant progress has been achieved. While challenges remain, our commitment to improving patient outcomes and procedural quality continues to drive advancements in our endovascular practice.