

Disease-Specific Patient-Reported Quality of Life After Fenestrated/ Branched Endovascular Aortic Aneurysm Repair

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Background

- Significant advances in technology and technique have facilitated minimally invasive repair of complex aortic aneurysms using fenestrated and branched endovascular devices (F/B-EVAR).
- We surveyed patient-reported quality of life (QOL) following F/B-EVAR using a previously validated disease-specific instrument.



Methods

- Living patients that underwent F/B-EVAR for pararenal or thoracoabdominal aortic aneurysms (n=285) were asked to complete a QOL survey that was previously validated in patients that underwent repair of an infrarenal abdominal aortic aneurysm.
- Surveys were evaluated in two primary QOL domains:
 - Emotional impact and activity change.
 - Emotional impact was calculated from the survey into a score (EIS) with range 0-100; higher scores indicated more emotional impact and worse QOL.
 - Activity change was assessed in four patient-identified areas (strenuous activity, travel, heavy lifting, and sexual activity) of greatest QOL impact after aneurysm repair.

Figure 1. Emotional Impact Score After F/B-EVAR

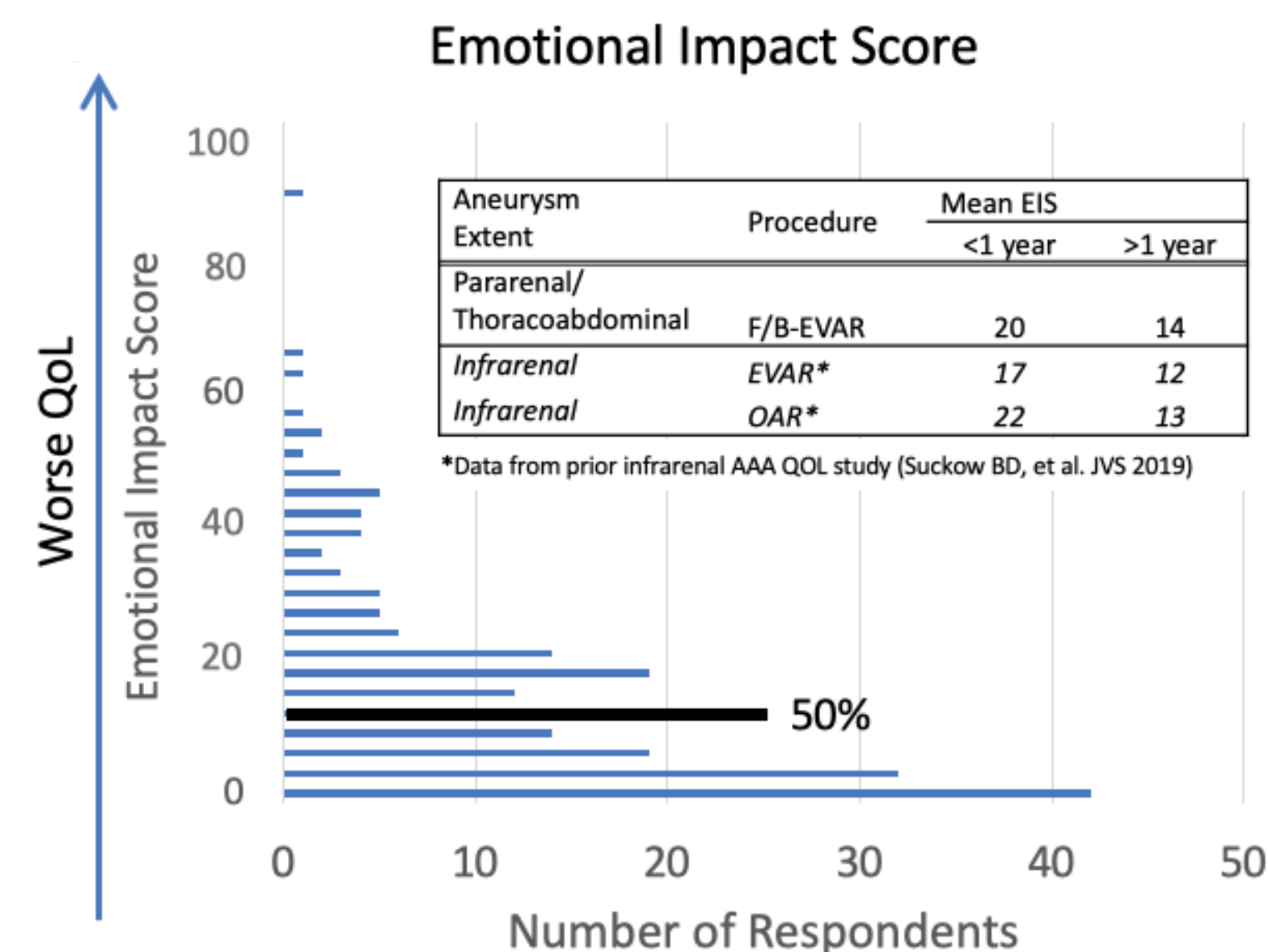
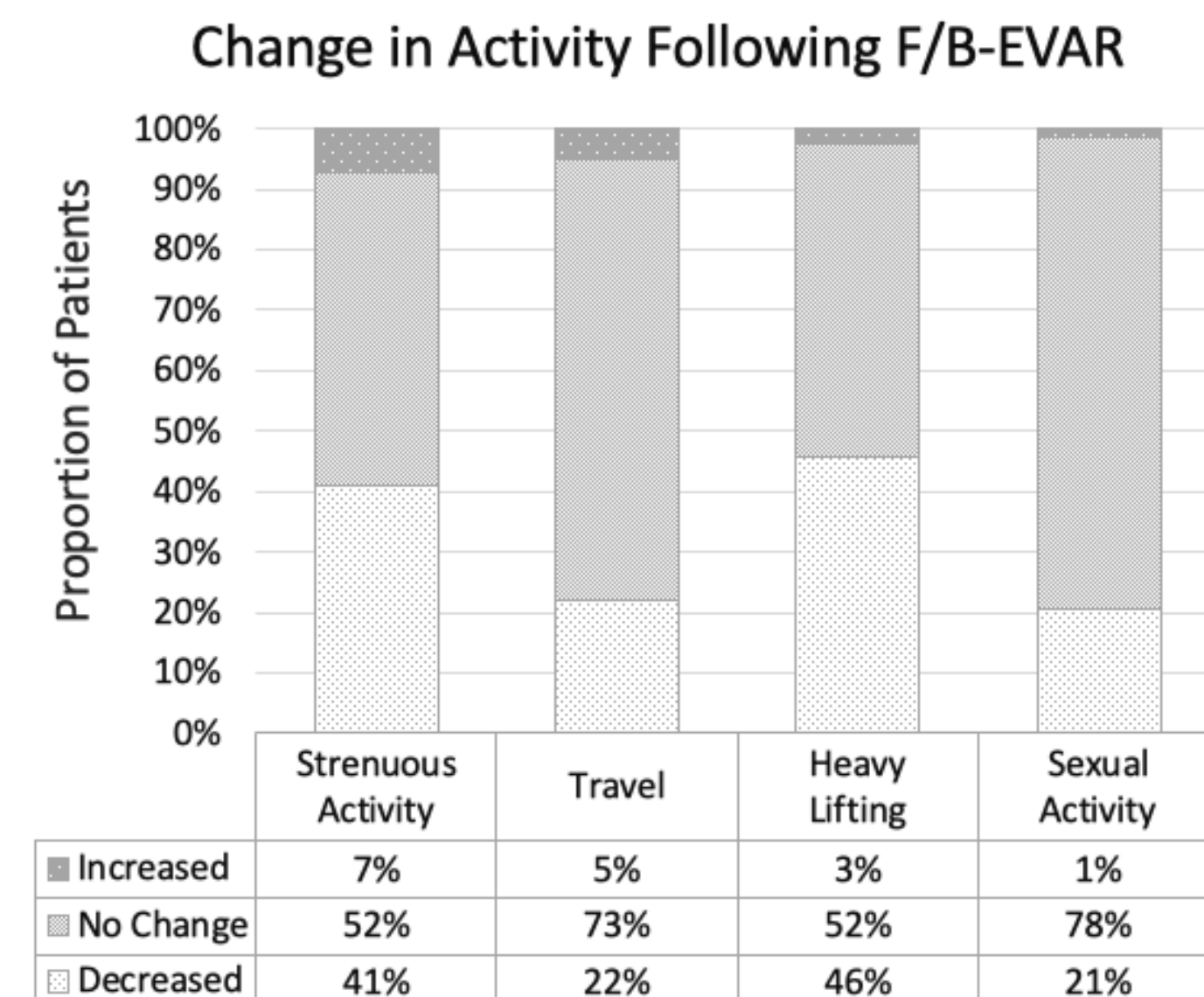


Figure 2. Change in Activity Following F/B-EVAR



Results

- Surveys were completed by 234 patients (82%), with mean follow-up length of 3.4 (± 2.8) years.
- Mean EIS was 16 (± 16) and slightly higher in the first post-operative year (20 vs 14); comparable to EIS previously seen after open (OAR) and endovascular (EVAR) infrarenal AAA repair. (Figure 1)
 - A broad 4th quartile of EIS scores (22-91) suggests a small portion of respondents with markedly worse QOL after F/B-EVAR.
- A majority of patients did not experience change in activity after F/B-EVAR. However, 40% of patients did report decrease in strenuous activity and heavy lifting after aneurysm repair. (Figure 2)

Limitations

- One-fifth of patients could not be contacted due to an outdated address or phone number, which may contribute to non-response bias.
- Additionally, roughly 25% of participants were women and only 10% were non-White, which does not represent all patient populations.

Conclusions

- Patients undergoing F/B-EVAR demonstrate similar emotional QOL compared to EVAR and OAR, including improvement within the first post-operative year.
- Patients most commonly report unchanged or decreased activity after F/B-EVAR.
- With confirmed feasibility of this disease-specific QOL instrument, its use in prospective evaluation of patients with complex aortic disease may provide greater insights into the impact of F/B-EVAR on QOL.