

Comparison of endovascular recanalization versus open bypass surgery for infra-inguinal Trans-Atlantic Inter-Society Consensus (TASC) - D arterial lesions – a retrospective comparative study

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Aims

Endovascular recanalization has been increasingly considered for long infra-inguinal arterial lesions (TASC- D lesions). The aim of this study was to compare endovascular recanalization with open bypass surgery for infra-inguinal TASC- D arterial lesions.

Methods

Retrospective data was collected from patients who had endovascular recanalization from January 2016 to April 2017 and infra-inguinal bypass surgery between January 2011 and August 2015. Primary outcome measures were 30-day mortality, 30-day patency and 30-day amputation rates. Secondary outcomes measures included long term patency and reintervention rates.

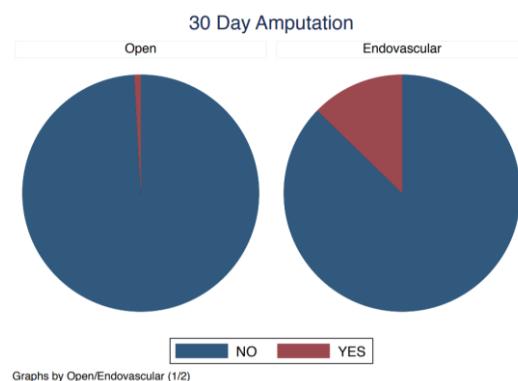
Results

116 patients had bypass surgery and 55 had endovascular recanalization (171 cases in total).

Bypass surgery had significantly higher 30-day patency rate against endovascular recanalization. 30-day amputation rates were again significantly better for bypass surgery as compared to endovascular. Late amputation rates were also higher for patients who had bypass (12.5% vs 4.1%) but statistically not significant ($p=0.100$). There was no significant difference for reintervention rates between the two groups. Mean ASA score for patients having bypass was 2.8 as compared to 2.6 for endovascular ($p=0.038$).

- **30 day patency:**
Open vs. Endo: 82.3% vs. 58.2% ($p<0.001$)

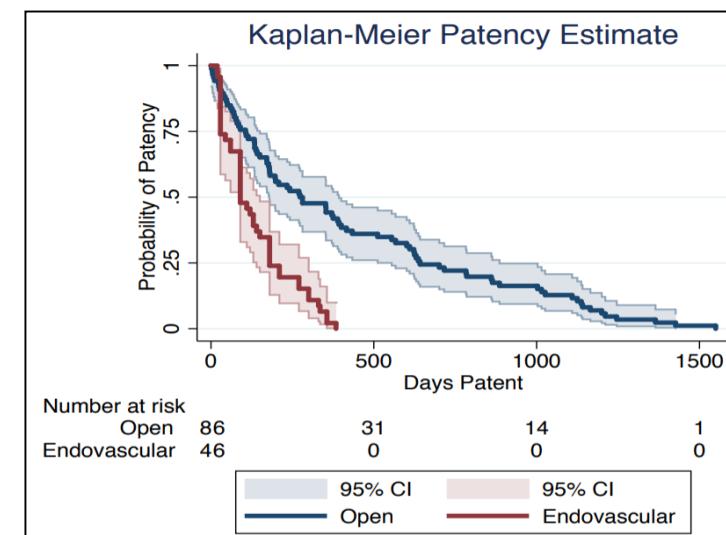
- **30 day amputation:**
Open vs. Endo: 0.9% vs. 12.7% ($p<0.001$)



- **30 day mortality:**
Open vs. Endo: 6% vs. 7.3% ($p=0.758$)



- **Late Patency:**
Open vs Endo (Median days):
277 (IQR 106-642) vs. 90 (IQR 29-180) $p<0.001$



Conclusion

Short and long term patency and short term amputation rates are better for bypass surgery as compared to endovascular recanalization for infra-inguinal TASC-D lesions from our collected data.