INTRODUCTION

- The management of aorto-iliac occlusive disease has undergone significant changes since the introduction of endovascular therapies.
- The choice between open and endovascular treatment remains a dilemma in clinical practice.
- Insufficient RCTs to provide level I evidence.

DISCLOSURES

Still believer in open aortic surgery

Five decades of controversy

1960s: Endarterectomy vs bypass
1970s: Aorto-iliac vs aorto-bi-femoral bypass
1980s: Axillo-bi-femoral vs aorto-bi-femoral bypass
2000s: Stenting vs aorto-bi-femoral bypass

Is ABF the gold standard?

A paradox. Despite the well-documented mortality, morbidity, and increasing failure of ABF, which have justified its elimination as the gold standard of aortic bifurcation reconstruction, this is paradoxical. The majority of patients with chronic aortic bifurcation disease are diagnosed in older age (reference paper). In the late 1980s, the results of the Aortic Bifurcation Study, and the data of the RITA trial were published, in which the mortality rate and the risk of complications were equal in patients treated by ABF and CABG. However, the incidence of complications and the rate of reintervention in the CABG group were higher compared to the ABF group. The incidence rate of re-intervention in the ABF group was 0.4%. In 2011, the study of the late 1970s was published, in which the incidence of re-intervention in the ABF group was 0.4%. The results of this study showed that the rate of re-intervention in the ABF group was lower than in the CABG group. The results of this study showed that the rate of re-intervention in the ABF group was lower than in the CABG group. The results of this study showed that the rate of re-intervention in the ABF group was lower than in the CABG group.

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• Classification system.

• Endovascular is the preferred method of treatment of localized disease (Type A & B).

• Extensive disease (Type C and D) can be best treated by open surgery.

Retrospective study
Jan 2006 to Dec 2013
Aorto bi fem 82 (group 1)
Kissing stent 128 (group 2)

MORTALITY <30 days (1) 1%
COMPLICATIONS (17) 20.5% (group 1)
(9) 7% (group 2)
RE-INTERVENTION 6% vs 11%

A PARADOX or CONVENTIONAL WISDOM?

1) M&M data on ABF bypass from the time before endovascular treatment became an effective alternative.

2) < Endovascular complications due to a better pre-operative planning, better technology, increased experience with the technique and improved patient selection.

3) Procedures left for open surgery are more surgically demanding.

4) Surgeons are becoming deskilled as result of reduced caseload.

5) Patient’s choice

Mortality and complications after aortic bifurcated hypogastric procedures for chronic aortic occlusive disease

• 20 year period audit from The Danish Vascular Registry + The Danish Register of Causes of Death (1993 to 2012)

• 3623 procedure (ABF 96% - ABI 4%)

• Intermittent claudication 65.6%

• Critical leg ischaemia 34.4%

• 30 day mortality

• Early complications

• Intra-operative determinants

• Cumulative survival

• Hospital Volume
MORTALITY 3.6%
- Cardiac (52)
- Multiorgan failure (30)
- Mesenteric ischaemia (9)
- Stroke (5)
- Renal failure (2)
- Bleeding (3)
- Not available (32)

MORTALITY (75-79 yrs) 13%
- Cardiac (52)
- Multiorgan failure (30)
- Mesenteric ischaemia (9)
- Stroke (5)
- Renal failure (2)
- Bleeding (3)
- Not available (32)

MAJOR COMPLICATION 20%
- Medical 15%
- Surgical 8.2%

None 0.5%
One 10%
Two 16%
Three 26%
> Three 36%
Mortality and complications after aortic bifurcated bypass procedures for chronic aortic occlusive disease

CONCLUSIONS

Our data show that insertion of an aortic bifurcated graft should still be considered a high-risk procedure, because every fifth patient faced a major complication. The mortality remains considerable, especially among the oldest patients and those with renal insufficiency and severe athrombotic manifestations. Having these numbers in mind, we must question the appropriateness of the aortic surgery performed because our data contain a very large cohort of elderly patients who underwent open aortic reconstruction for clarification (6%). The decrease in open surgical activity, however, did not result in a worse outcome for patients during the study period, and this may reflect improved intraoperative and postoperative care or better patient selection. Thus, provided that a careful preoperative assessment is undertaken, the use of an aortic bifurcated graft and preferably ABF rather than ABF bypass procedures remains a reasonable option when less invasive possibilities are fully exhausted.

When is ABF the procedure of choice?

- Infra renal aortic occlusion
- Associated AAA
- Hypoplastic iliac arteries
- Severe angulation EIA
- Severe calcification
- Anatomical variants
- Failed endovascular treatment
CONCLUSION

• Aorto-bi-femoral bypass is still effective but is an “endangered” procedure.

• ABF remain the gold standard for very selective patients.

• It is only indicated when endovascular management is not feasible.

• TASC III document is needed

• Impact on surgical training?