Minimal Incision For Open Aortobifemoral and Fempop Bypasses: Technical Tips and Advantages

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I have the following potential conflicts of interest to report:

* Consulting
* Employment in industry
* Shareholder in a healthcare company
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* Other(s)

X I do not have any potential conflict of interest

WHAT IS YOUR CHOICE?

If one can safely perform bypasses with minimal incision – let’s do it routinely!!!
Incision
- A 4-5 cm incision must be done on the medial surface of the thigh.
- Incision should be done just below the end of occlusion.

Reaching the Artery
- Reaching the popliteal artery by tissue separation and fascia incision.
- Hook-like maneuver:
  - In knee flexion, with index finger "hook-like" maneuver is done to elevate the neurovascular bundle to the skin level.

Artery separation
- Additional separation of the artery from other fascia structure enables to pull the artery further.
- Proximal and distal vessel loops:
  - Once the artery is separated, proximal and distal vessel loops are applied.

Vein and nerve release:
- Vein and nerve are released and pull/pushed these teguments longitudinally and remaining covered but limited to the side of the occlusion.

Endarterectomy
- When necessary, endarterectomy is performed with clot removal and popliteal artery opening.

Catheter insertion:
- Catheter is inserted into the distal part of the popliteal artery.

Control angiography:
- Control angiography of peripheral arteries is routinely made with angioplasty performed when necessary.

Anastomosis
- End to side distal anastomosis with 5.0 Prolene is made (Great Saphenous Vein reverse or PTFE helical vascular graft).
- The artery is elevated to skin level!!!

Redon drainage:
- Redon drainage is always used.

Suture:
- Layered sutures to close the wound.
Incision
A 5 cm horizontal (right angle) incision must be done around 2 cm above umbilicus.

Rectus Incision
Incision of the anterior abdominal wall (2-3 cm on either side)

Rectus Abdominis
Rectus abdominis muscle is cut but only retracted laterally!!

Rectus Abdominis Incision
8-10 cm horizontal (slightly curved) incision must be done around 2 cm above umbilicus.

Reaching
Reaching the femoral with finger tissue is performed.

Fascia Incision
Transverse incision of anterior and posterior layer of rectus abdominis muscle sheaths (2-3 cm on either side)

Fascia Incision
5-6 cm horizontal incision.

Aorta Incision
Longitudinal incision is performed.

Anastomosis
End to side anastomosis with 3.0 prolene is made.

Embolectomy or endarterectomy
When necessary embolectomy or endarterectomy is made via small longitudinal incision over prostheses.

Tunelling
Canalization for prostheses' arms is made secretly using index fingers, pushing them over surface of iliac arteries.

Graft Transposition
Prostheses are attached to the femoral by stiches through previously prepared tunnel.

Anastomosis
End to side anastomosis is performed with 5.0 prolene.

Closing
Layered sutures to close the wound.

Redon Drainage
Bilateral Redon drainage should be done.
In aortobifemoral bypass the abdominal breathing is not impaired.

Postoperative lack of or shortlasting gastrointestinal stasis occurs.

Patient is discharged home on 3 day which reduces costs and risk of hospital acquired wound infection.

Limited dermal paresthesia occurs.

Good cosmetic effect.

In our experience no iliac vein damage occurs.

Postoperative lack of or shortlasting gastrointestinal atony occurs.

Scare length

Minimal incision techniques give important advantages for the operated patients.

Low operation risk.

By-pass operations with minimal incision are a safe procedure, with a small risk of complications.

Minimal incision reduces level of patients' discomfort and aids quick recovery after surgery.

Furthermore study on a larger group of patients is required to confirm safety and efficacy of the procedure.

Conclusions after treating first series of patients with minimal incision for open aortobifemoral and femop bypasses.

CONCLUSION

No contraindications for this technique.

Precautions and contraindications.

Further study is required.

Another minimal incision.

MICE – minimal incision carotid endarterectomy.

What would you like to do?

Thank you for your time.

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Presented technique and data soon to be published.