

# Extra-Anatomical (Femoro-Femoral) Bypass Graft ((Case Report))

Saad M. Salih<sup>1</sup>, Labeeb Q. Abdulrahman<sup>2</sup>, Abdullah S. Alhassan<sup>3</sup>

## *Abstract*

A 64 years old male presented with sever intermittent claudication with skin became pale ,hair loss of the affected limb and nail abnormalities .

The exercise tolerance (walking) for his limb not more than 50 meter and he stop due to sever limb pain.

On examination the affected limb is cold and shiny with abnormal hair distribution and nail distruction.

The pulses were absent from the femoral area downward including the popliteal, posterior tibial and dorsalis pedis arteries.

Duplex study results was confirmed by arteriography showed localized segmental complete occlusion of the left common iliac artery from the bifurcation of abdominal aorta downward to the left external iliac artery and some sort of backflow through the common femoral artery downward with patent common femoral, superficial femoral and profunda femoris arteries.

**Keywords :** Saad ,femoro-femoral grafts.

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## *Introduction*

Extra-anatomic arterial reconstructions were devised to circumvent complex vascular problems when conventional anatomic procedures necessary for the relief of severe ischemia were deemed impossible or too hazardous to perform. Freeman and Leeds first applied this concept<sup>(1)</sup>.

## *Case Report Presentation*

extra-anatomic procedures have been described to restore an adequate blood supply to both the upper and lower extremities, the brain, and more recently the kidneys<sup>(2)</sup>.

warfarin improves the patency and limb salvage rates for patients with autogenous vein bypass grafts who are at high risk for graft failure<sup>(3)</sup>.

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<sup>1</sup> Anbar Medical college, department of surgery, thoracic and cardio-vascular unit

<sup>2</sup> Anbar Medical college.dept.fo surgery, radiology unit

<sup>3</sup> Anbar Medical college.dept.of medicine ,dermatology unit

Although the crossover femoro-femoral bypass graft can be performed entirely with the patient under local anesthesia, we prefer to use light general anesthesia. for a primary crossover graft since we often extend the anastomosis into the deep femoral artery. In this case 6-mm PTFE grafts have been used.

Both femoral arteries are exposed through standard longitudinal groin incisions and are connected via a suprapubic subcutaneous tunnel. Digital dissection should be used when creating the tunnel to prevent inadvertent penetration into the abdominal cavity or the bladder. It is important that the anastomosis of the graft to the low-pressure recipient femoral artery be carried out before its anastomosis to the donor artery. This preference is based on the observation that suture leakage in the graft may be significant under normal arterial pressure and anticoagulation. In this manner, not only is blood loss diminished, but also the period of occlusion of the donor artery is minimized.

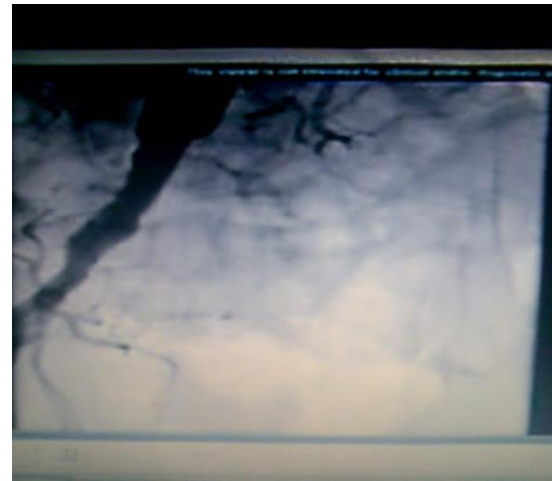
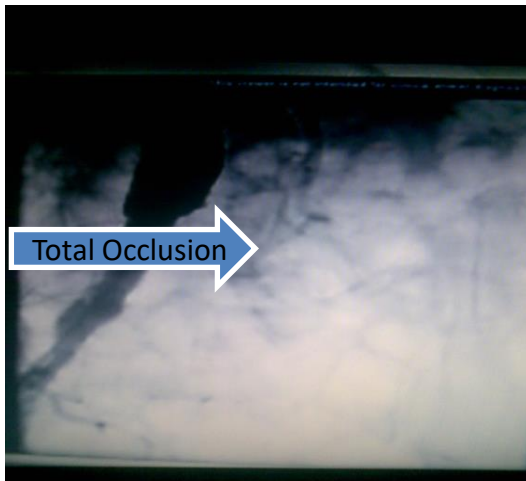
Generally, this operation is simple and can be expeditiously performed. At times, however, the femoral arteries may harbor a thick anterior plaque or may be heavily calcified.

Excessive tension should not be applied to the side branches because it may induce separation of the thickened plaque from the arterial wall. In addition, one should not be tempted to perform a femoral endarterectomy because the disease process may extend well into the deep femoral artery, making appropriate repair difficult to accomplish. Instead, the edges of the plaque should be anchored to the arterial wall with interrupted U stitches, and the distal end of the graft should be tailored as a patch over this repair.

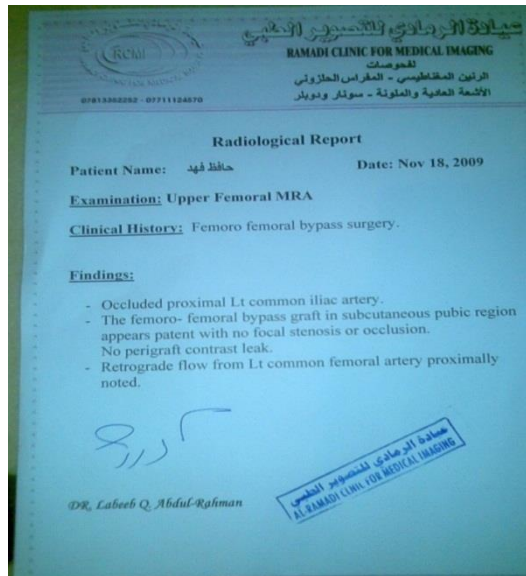
## Discussion

The long-term primary patency rates for crossover femorofemoral grafts are superior to those obtained with axillofemoral reconstructions. Thus, high-risk patients who are initially seen with unilateral, limb-threatening ischemia due to iliofemoral occlusive disease should be

Simple crossover extension grafts can also be successfully performed in patients already subjected to unilateral aortofemoral or axillofemoral procedures who have become symptomatic in the contralateral limb. Failed attempts at thrombectomy of a unilaterally occluded aortobifemoral graft also warrant placement of a crossover femoral graft to avoid a difficult abdominal repeat operation.



Reports of operative mortality ranging from 2% to 15% reflect differences in patient populations rather than the complexity of the procedure<sup>(4,5,6)</sup>. Similarly, long-term patient survival has varied from 42% to 80% at 5 years<sup>(7,8)</sup>. femorofemoral bypasses are now established procedures for limb salvage and disabling claudication<sup>(9)</sup>.



## References

1. Freeman NE, Leeds FH. Operations on large arteries. Calif Med 1952;77:229.
2. Mohan CR, Sharp WJ, et al. A comparative evaluation of externally supported polytetrafluoroethylene axillobifemoral and axillounifemoral bypass grafts. J Vase Surg 1995;21:801.
3. Sarac TP, Huber TS, et al. Warfarin improves the outcome of infrainguinal bypass grafting at high risk for failure. J Vase Surg 1998;28:446.
4. Buckley CJ, Abernathy S, et al. Suggested treatment protocol for improving patency of femoral-infrapopliteal cryopreserved saphenous vein allografts. J Vase Surg 2000;32:731.
5. Passman MA, Taylor LM, et al. Comparison of axillofemoral and aortofemoral bypass for aortoiliac occlusive disease. J Vase Surg 1996;23:263.
6. Martin D, Katz SG. Axillofemoral bypass for aortoiliac occlusive disease. Am J Surg 2000;180:100.
7. Yeager RA, Taylor LM, et al. Improved results with conventional management of infrarenal aortic infection. J Vase Surg 1999;30:76.
8. Seeger JM, Pretus HA, et al. Long-term outcome after treatment of aortic graft infection with staged extraanatomic bypass grafting and aortic graft removal. J Vase Surg 2000;32:451.
9. Blaisdell FW, Hall AD. Axillary-femoral artery bypass for lower extremity ischemia. Surgery 1963;54:563.