

DIABETIC FOOT 3D ANGIOGRAPHY SETS THE RISK OF MAJOR AMPUTATION FOR HEEL WOUND

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INTRODUCTION

Heel diabetic foot lesion (H.D.F.L) leads to major amputation if the external plantar arch artery (E.P.A.A) is missing. Collaterals don't supply this small terminal artery. Revascularisation technics are hopeless.

Osteo-myelitis progress as antibiotics cannot reach the heel, calcaneum fracture eventually occurs.

3D angiography offers a highly accurate exploration of the diabetic foot vascularisation. This new technic is proposed in our center since september 2014.

MATERIAL

During 24 months (september 2014 – september 2016), diabetic patients (n = 122 / type 1 n = 33 type 2 n = 99) were evaluated for bone (n= 99) or vascular (n=85) feet wound.

Heel wound was the problem in 23 patients. Missing the external plantar arch artery was suspected.

Mean age was 67 yld (range 41 – 89 yld), sex ratio was 81 men and 51 women,

METHOD

- 3D Angiography was performed in Inova GE hybrid cathlab suite with 3D software. 4F introducer device, 4F straight catheter, mean time 30 minutes, irradiation 1,01 gycm², 30 cc of non ionic iodine Hexabrix™ 320
- Duplex Doppler of arterial limb and foot TDM or X-rays were realized in all patients
- Bone biopsy was proposed when necessary following IDSA 2012 rules.
- Chronic wound evolution was at least 6 weeks in 100 %
- Wound excision, off loading, adjusted antibiotics, alginate dry dressing were systematically proposed

CONCLUSION

In 23 patients with heel lesions, 18 patients had E.P.A.A.

Major amputation were done for the 5 patients who missed E.P.A.A.

3 D angiography of diabetic foot is a key evaluation for heel wound.

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