Review of popliteal and infrapopliteal angioplasty in a Major Teaching Hospital
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Background
Leeds Teaching Hospital has been treating critical limb ischemia using endovascular techniques for more than a decade. We have developed a diabetic foot limb salvage program and a dedicated MDT since 2008.

The below knee endovascular interventions are performed predominantly by interventional radiologists. The retrospective audit was performed to evaluate the success and re-intervention rate of our patients undergoing popliteal and infrapopliteal angioplasty for critical limb ischaemia.

Methodology

Results
1149 popliteal and infra popliteal angioplasties in 748 patients for over 9 years.
78 - limbs had re-intervention
8 patients had bilateral re-intervention
12 - major amputation post intervention
33 – passed away within 30 days post angioplasty

Results – Re-intervention
Time to re-intervention - 78 limbs
378 (SD 439, Min 6, Max 2545) days
Number of re-interventions
2 re-interventions - 61
3 - stents
2 - DCB
12 - within 90 days
3 re-interventions – 15
0 major limb amputation
1 stent
2 DCB
2 - within 90 days
4 re-interventions – 2
0 major limb amputation
0 stent
0 DCB
0 - within 90 days

Results 30 day mortality
4% (33/748)
• 10 - Sepsis/Pneumonia
• 5 - Post procedure bleeding (1 GI bleed)
• 5 - Post discharge from hospital
• 4 - Unknown
• 4 - Myocardial infarction
• 2 - Other surgical procedure related
• 2 - ESRD and multi-organ failure
• 2 - Malignancy (1 pancreatic cancer, 1 lymphoma)

Indicator
Measurement of re-intervention rates, major limb amputation and complication rates among the patient population.

Standard
Previously reported infra-popliteal angioplasty success rates ranged from 88 to 95% and limb salvage rates of one year at 89%.
Complication rates were reported at approximately 2% and periprocedural mortality of up to 16.2%

Target:
Set internally as primary success rate of 90% and complication rates of 2%.

References

1st action plan:
• Maintain current success rates.
• Consider new emerging technology in drug coated balloons/stents to further reduce re-intervention rates and duration between
• Second audit cycle in 3 years.