OUTCOME FOLLOWING SURGICAL REPAIR OF LOWER LIMB VASCULAR TRAUMA


INTRODUCTION

• Lower limb vascular trauma is a major cause of severe disability and amputation worldwide.
• The risk of amputation following repair is unclear.

OBJECTIVE

To develop a more precise understanding of the:
• Amputation risk after vascular trauma repair
• Related prognostic variables

METHODS

PROTOCOL: PROSPERO CRD42012002720
INCLUSION: Original studies reporting amputation rates following vascular trauma repair.
EXCLUSION: Sample ≤ 5; iatrogenic vascular injuries; chronic complications; non-standard treatment.
LIMITS: Date (2000–2012); English; Human
QUALITY ASSESSMENT: Individual sensitivity analysis of 8 methodological criteria (results not shown).
META-ANALYSIS: random–effect Bayesian Model

RESULTS

Figure 1: PRISMA flow diagram.

Figure 2: Pooled secondary amputation proportions

Figure 3: Subgroup analysis of clinical prognostic factors

CONCLUSIONS

• Secondary amputation is common following vascular trauma repair.
• Prognostic variables essential for risk-stratification, patient counseling and surgical decision-making are:
  • Mechanism of injury
  • Anatomical site of injury
  • Associated fracture
  • Extent of soft tissue injury
  • Ischaemic time
  • Development of compartment syndrome

http://www.smd.qmul.ac.uk/research/neuro/traumascience/