

How to treat our patients comfortably in Foot and Ankle Surgery?

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Introduction

- Orthopaedic patients have high risk of pain compared to other types of surgery (Chung et al 1997)
- Poorly controlled pain may incite pathophysiological responses, increasing morbidity (Kehlet 1997)
- Uncontrolled pain will decrease patient satisfaction

McGrath et al 2004

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Multimodal analgesia

'Combination of more than one type of analgesic to optimize pain control while minimizing the adverse effect of individual agents'

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PREOPERATIVE

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Pain catastrophising, body mass index and depressive symptoms are associated with pain severity in tertiary referral orthopaedic foot/ankle patients

Matthew Holt^{1,2}, Caitlin L. Swalwell^{1,2}, Gayle H. Silveira⁴, Vivienne Tippett², Tom P. Walsh^{1,3*} and Simon R. Platt^{1,2}

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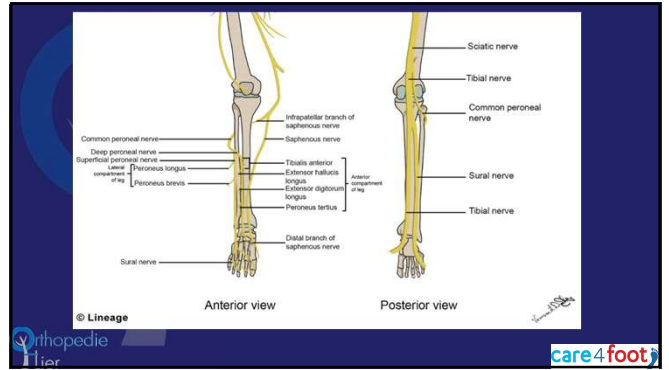
Preoperative counseling

- Expectation of pain influences
- Processing of incoming noxious stimuli
- Brain projections to the spinal cord, enhancing ascending pain signals

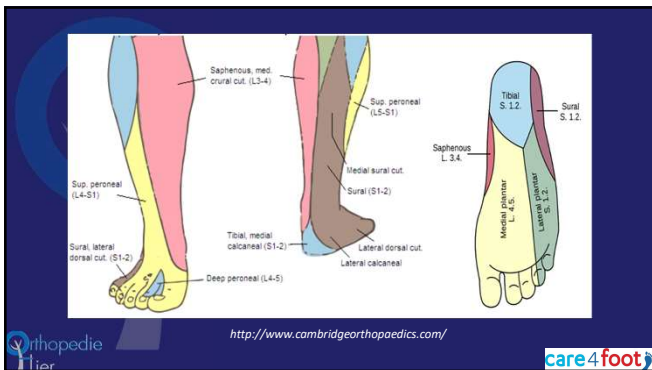
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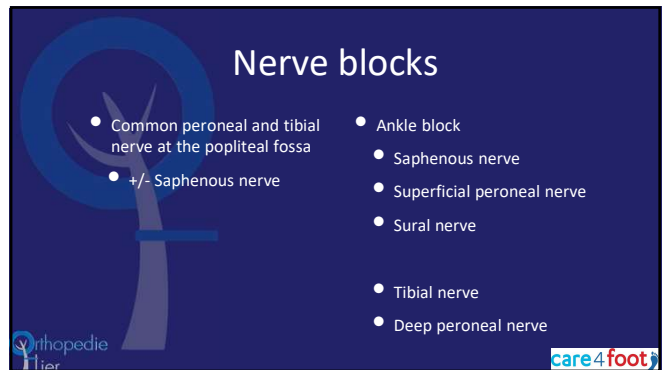
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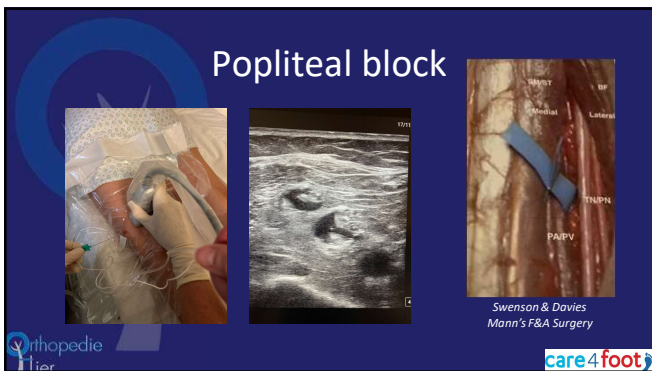
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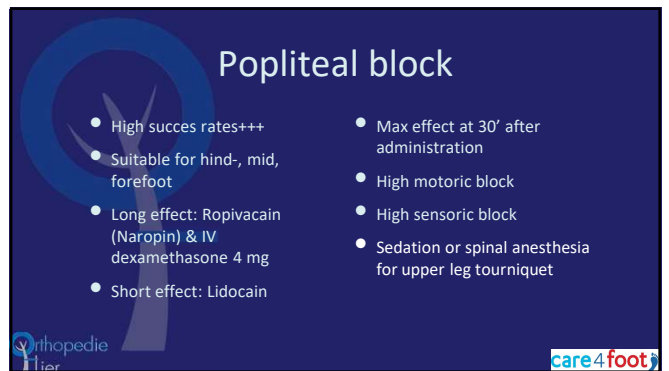
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Saphenous block

- Indicated for (antero)medial approaches
- Exits adductor canal between vastus medialis and sartorius
- Emerges deep to pes anserinus to subcutaneous tissue on medial side of tibia

Swenson & Davies
Mann's F&A Surgery

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Ankle block

Choudhary 2019; Conrad 2016

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Ankle block

- Reported success rate 66 - 95%
- Limited motoric deficiency
- US guided is more efficient than landmark based
- Not suitable for hindfoot surgery
- Sedation or spinal anesthesia required for tourniquet
- Max effect at 30' after administration

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Virtual Reality Glasses

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Sedation/general anesthesia?

- Failure of nerve block
- Application of (upper limb) tourniquet
- Iliac crest bone graft
- Lateral or prone decubitus
- Prolonged surgery time
- Patient profile

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POSTOPERATIVE


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Reduce swelling & pressure

- Elevation!
- Avoid tight bandages
- Stockings in foot and ankle surgery?
- Low compliance
- No effect on swelling

(Grubhofer et al 2018)



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Pain medication

- WHO guidelines
- Acetaminophen / paracetamol
- NSAID
- Opioid – Monoamine Reuptake inhibitors (Tramadol)
- Opioids

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NSAID?

- Associated with
- Platelet dysfunction - gastro-intestinal toxicity - renal toxicity
- Impaired bone, connective tissue healing and chondrogenesis in animals studies
 - Not confirmed in clinical studies
- Avoid long term use in at risk patients for nonunions – cartilage surgery


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Opioids

- High abuse potential
- Respiratory depression
- Nausea
- Constipation
- Pruritis


=> Need for opioids is decreased since introduction of multimodal analgesia

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Multimodal anesthesia

- Correct indication for surgery (patient profile)
- Preoperative counseling
- **Locoregional** +/- sedation – virtual reality
- Postoperative instructions to reduce swelling and pressure
- Correct use of pain medication

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