PARALLEL SESSION 3:
PAIN MANAGEMENT
TIME: 11:30 – 15:15

11:30 - 16:30

Regional Anaesthesia and Multimodal Analgesia for Reducing the Incidence of Chronic Post-Abdominal Surgical Pain

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Abstract:
Chronic post-surgical pain (CPSP) is a significant complication that can persist for months or years following abdominal surgeries, profoundly affecting patient quality of life. Effective management and prevention of CPSP are crucial for improving postoperative outcomes. Multimodal analgesia (MMA) and regional anaesthesia (RA) are key strategies in reducing CPSP incidence. This review examines the roles, mechanisms, and effectiveness of these techniques in preventing chronic pain after abdominal surgeries.
MMA involves using multiple analgesic medications and techniques to target different pain pathways, providing comprehensive pain relief and minimizing opioid use. Key components include NSAIDs, acetaminophen, gabapentinoids, NMDA receptor antagonists, and alpha-2 agonists. MMA effectively reduces acute postoperative pain and the risk of CPSP by preventing nervous system sensitization.
RA, including neuraxial blocks (e.g., epidurals) and peripheral nerve blocks (e.g., transversus abdominis plane blocks), provides targeted pain relief by blocking nerve signals in specific body regions. RA helps prevent CPSP through mechanisms such as blocking nociceptive input, reducing central sensitization, and anti-inflammatory effects.
Studies indicate that both MMA and RA are effective in reducing CPSP following various abdominal surgeries. Combining RA with other modalities in a multimodal approach enhances pain control and reduces chronic pain risk. Techniques like TAP blocks, bilateral lumbar erector spinae plane blocks, and interfascial plane blocks have shown reliability in postoperative pain management for abdominal surgeries, emphasizing the importance of regional techniques in MMA.
Integrating MMA and RA provides comprehensive pain relief, minimizes opioid consumption, and addresses multiple pain pathways, significantly improving postoperative outcomes and quality of life. Further research should explore optimal combinations and techniques within MMA and RA to enhance efficacy and applicability across surgical contexts. Implementing these strategies as part of standardized pain management protocols can significantly reduce CPSP following abdominal surgeries.