

PARALLEL SESSION 2:

RA & UPPER LIMB BLOCKS

TIME: 13:00 – 15:15



14:45 - 15:00

The Brachial Plexus Blocks & Diaphragmatic Paresis: Strategies for the Best Patient Care

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Abstract:

The brachial plexus block one of the most common regional anaesthesia technique for upper limb surgeries, providing both effective analgesia and anaesthesia. While it is generally considered a safe and simple procedure, diaphragmatic paresis is a possible complication, that could potentially impact respiratory function, especially in patients with pre-existing pulmonary conditions.

This presentation explores the mechanisms of diaphragmatic paresis associated with brachial plexus blocks and outlines strategies to mitigate this risk while optimizing patient care. We will review the anatomical and physiological basis of the brachial plexus and diaphragm innervation, focusing on how anaesthetic agents can inadvertently affect the phrenic nerve and respiratory function.

Evidence-based approaches to minimize diaphragmatic involvement will be discussed, including the selection of block techniques and adjustments in local anaesthetic volume and concentration. Patient-specific considerations, including preoperative respiratory assessment and identifying high-risk individuals, will be emphasized as well as the framework of assessment and management for symptomatic diaphragmatic paresis.

Through case studies and evidences, this presentation aims to provide an insights into optimizing brachial plexus block practices to ensure the highest standards of patient safety and care while enhancing patient outcomes.