

From Nerves to Fascial Planes: The Changing Paradigm of Regional Anaesthesia

Sandeep Diwan¹

²Department of Anaesthesiology, Sancheti Hospital, Pune, Maharashtra, India.

Regional anaesthesia has always been a story of continuous evolution. We moved from anatomical landmarks to nerve stimulation, and then to ultrasound, each advance bringing greater precision and safety. Today, however, we find ourselves at another turning point. The excitement is no longer just about introducing another block; it is about understanding why blocks work and how anatomy, fascial planes, and injectate behaviour shape clinical outcomes.

The articles in this issue of the International Journal of Regional Anaesthesia beautifully reflect this evolution. The discussions on the Para-Iliopsoas (PIP) block, Modified Thoracoabdominal Plane Block (M-TAPA), and External Oblique Intercostal Plane Block (EOIPB) remind us that regional anaesthesia is gradually shifting from a nerve-centric specialty to one that is increasingly anatomy-driven.

For many years, success meant placing local anaesthetic as close as possible to a named nerve. Fascial plane blocks have challenged that traditional thinking. They have taught us that tissue planes, anatomical continuity, and the behaviour of injectate are equally important. The question we now ask is no longer simply, Which nerve am I blocking? Instead, we ask, Which anatomical pathway am I influencing? That subtle change in perspective has opened new possibilities in both research and clinical practice.

The newer techniques featured in this issue should therefore not be viewed merely as additions to an already long list of blocks. Rather, they represent refinements in our understanding of anatomy. Whether targeting the

iliopsoas compartment, the perichondrial plane, or the external oblique intercostal interface, each technique seeks to improve analgesia while minimizing motor blockade and unnecessary tissue disruption.

Equally refreshing is the balanced scientific approach adopted by the authors. They acknowledge that the available evidence is still evolving, with limitations such as small sample sizes, heterogeneous methodologies, and variable sensory mapping. Such honesty strengthens the science. Innovation should stimulate curiosity, but it is rigorous evidence that ultimately determines whether a technique earns its place in everyday clinical practice.

Another striking feature of contemporary regional anaesthesia is the growing partnership between cadaveric research and clinical investigation. Cadaveric dissections, combined with CT imaging and meticulous anatomical studies, are helping us visualize injectate spread and better understand why certain techniques succeed while others produce variable results. These studies are steadily narrowing the gap between anatomical theory and bedside practice.

Ultrasound has also matured beyond being simply a tool for locating nerves. It now allows us to appreciate anatomy as a dynamic, three-dimensional system. Success depends not only on identifying structures but also on recognizing fascial planes, hydrodissection, needle trajectory, and real-time injectate spread. Precision today lies as much in understanding anatomy as in technical skill.

Looking ahead, the future of regional anaesthesia is

Address for Correspondence

Dr. Sandeep Diwan,

Department of Anaesthesiology, Sancheti Hospital, Pune, Maharashtra, India.

Email ID: sdiwan14@gmail.com

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likely to extend well beyond new block descriptions. Artificial intelligence, advanced imaging, computational modelling of injectate spread, and personalized analgesic strategies promise to further transform our practice. As our understanding grows, regional anaesthesia is evolving from a procedural discipline into a comprehensive science of precision perioperative pain management.

As the official journal of AORA, IJRA has an important responsibility in this journey. Our role is not simply to

publish new techniques but to encourage thoughtful debate, robust anatomical research, and high-quality clinical evidence. Progress in regional anaesthesia will ultimately be measured not by the number of blocks we describe, but by how well we understand anatomy, critically evaluate evidence, and translate both into safer, more effective care for our patients.

Sandeep Diwan
Editor IJRA

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