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SP24 INFORMED CONSENT FOR REGIONAL ANESTHESIA: WHAT SHOULD WE TELL OUR PATIENTS?

S Galitzine. *Consultant Anaesthetist, Regional and Orthopaedic Anaesthesia Training Lead, Nuffield Department of Anaesthetics*

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The physician must be ready, not only to do his duty himself, but also to secure the cooperation of the patient...

Hippocrates The ethics of patient-doctors relationship have been quite complex and somewhat controversial for >2,500 years, starting from the times of the Father of Medicine and his colleagues^{1,2}. Medical deontology and medico-legal system developments, and other factors greatly influence the informed consent (IC) standards. While we still follow many principles of the Hippocratic Oath and his many imperatives, 'Do not harm', in particular, the paradigm of IC has shifted far away from the 'Conceal everything from your patient'.

Numerous IC guidelines have been updated recently^{3–6}; clinicians are obliged professionally and medico-legally to follow them. IC becomes even more electrifying for Regional Anaesthetists when we seek our patients' agreement - for their benefits, of course! - for us to 'stick' sharp needles in proximity to their spinal cords and nerves and inject potentially lethal drugs close to their arteries and veins. Some conflict is inevitable, with clinicians finding some guidelines 'unrealistic, unethical, untenable'⁷. It is just possible that one day there will be another shift from a legal claim-centred to patient-centred IC.

My talk will concentrate on discussing the following regarding IC for RA:

- Types, principles and key points
- Recent landmark publications^{3–9}
- Risks disclosure for RA: which, when and how
 - o General and Specific
 - o CNBs and PNBs
 - o 'Large' print, 'small' print and 'special circumstances'
 - o Patient's recall
 - o Situation awareness
- Why anaesthetists may be reluctant to follow guidelines?
- 'Not documented not done'. Oxford standardised consent labels (pic 1&2). The 'up the hill, down the hill' quality improvement 'battle' in one busy teaching orthopaedic centre^{10–12}
 - Can IC harm the anaesthetist?
 - Can IC harm the patient?
 - Lessons from personal experience

Neuraxial consent		Anaesthetist name _____	
<input type="checkbox"/> Procedure	<input type="checkbox"/> Nerve damage	Other _____	
<input type="checkbox"/> Benefits	<input type="checkbox"/> PDPH		
<input type="checkbox"/> Alternatives	<input type="checkbox"/> Post op pain plan		
<input type="checkbox"/> Failure	<input type="checkbox"/> Info. leaflet		
<input type="checkbox"/> Motor block	<input type="checkbox"/> All Qs answered		
<input type="checkbox"/> Hypotension	<input type="checkbox"/> Patient consents		

Nerve block consent		Anaesthetist name _____	
Block(s) _____	<input type="checkbox"/> Insensate limb	Other _____	
<input type="checkbox"/> Procedure	<input type="checkbox"/> Nerve damage		
<input type="checkbox"/> Benefits	<input type="checkbox"/> Post op pain plan		
<input type="checkbox"/> Alternatives	<input type="checkbox"/> Info. leaflet		
<input type="checkbox"/> Failure	<input type="checkbox"/> All Qs answered		
<input type="checkbox"/> Motor block	<input type="checkbox"/> Patient consents		

Abstract SP24 Figure 1 Oxford standardised 'sticker' consent labels

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SP25 REGIONAL ANESTHESIA IN PATIENTS WITH NEUROLOGIC DISORDERS: SENSE OR NONSENSE? A PROBLEM BASED LEARNING DISCUSSION

Manfred Greher. *Medical Director and Head of the Department of Anesthesiology, Intensive Care and Pain Therapy, Herz-Jesu Hospital, Vienna, Austria*

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A considerable amount of patients scheduled for surgery suffers from concomitant neurologic disorders. Traditionally, they have been precluded from regional anesthesia for fear of the postulated 'double crush' phenomenon, which is an increased susceptibility for second site neuronal injury via needle trauma or local anesthetic neurotoxicity. But on the other hand, general anesthesia is posing significant risks too, concerning autonomic dysfunction, interference with neuromuscular blocking agents and other anesthetics, respiratory weakness and airway complications as well as postoperative delirium.

More recent publications, although sparse, have shown, that regional anesthesia can for example be used successfully without neurologic complications in patients with peripheral neuropathies like Charcot-Marie-Tooth, in neuromuscular junction diseases like myasthenia gravis or in central nervous system disorders like multiple sclerosis.

Still, new data indicates also that neuraxial anesthesia may increase the risk of new or worsening neurologic symptoms in preexisting significant spinal pathology and that diabetic nerves are truly more sensitive to local anesthetics.

This problem based learning discussion presents different clinical cases and reviews today's evidence including both neuraxial- and peripheral block techniques. It doesn't limit itself on answering the question if choosing regional anesthesia after an individual risk/benefit consideration makes sense here or not, but also tries to work out under which circumstances and especially how to do it most safely, if indicated.

SP26

PERIPHERAL NERVE BLOCKS FOR TKA

^{1,2}PA Grossi, ^{1,2}G Terranova, ^{1,2}D Genco, ²Romualdo Delbuono. ¹University of Milan, Department of Anesthesia, Intensive Care and Pain Medicine; ²ASST- istituto ortopedico G. Pini, Department of Anesthesia, Intensive Care and Pain Medicine

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Background Knee osteoarthritis (OA) is one of the most common disabling pain conditions, leading to poor quality of life, direct and indirect costs. Main symptoms are decreased range of motion, stiffness, function-limiting pain and limitation in physical mobility. Every year more than one million procedures are performed all over the world. Recent reviews underline that nearly 25–30% of patients do not achieve satisfactory outcomes after TKA surgery because of persisting pain. Although recent research ruled out anaesthesia choice as a factor influencing outcome, peripheral nerve blocks are proven to provide satisfactory analgesia and reduced adverse events in terms of respiratory failure, cognitive impairment and myocardial infarction without influencing hospital length of stay significantly.¹

Peripheral nerve blocks have been developed into a multitude of different approaches. From proximal to distal, these approaches are more and more selective with the aim to be motor sparing.

Even though a good analgesia can be obtained performing a lumbar plexus block or an epidural, in the clinical setting every day we try to be effective but minimally invasive to match a perfect risk/benefit balance. PNBs should be preferred over epidurals in terms of risk of complications.²

The knee joint is a complex neuroanatomic zone. Given the innervation is provided by lumbar and sacral plexus, the

knee capsule can be divided into an anterior portion and the posterior or anterior capsule and posterior capsule.^{3,4}

In this article we outline the current strategies to provide effective analgesia for TKA using peripheral nerve blocks

Anterior Capsule The anterior capsule is substantially provided by the terminal branches of the lumbar plexus. These nerves are distal divisions of the femoral and partially the obturator nerves.³

For this reason, femoral Nerve block is still the mainstay of knee analgesia in Total Knee Arthroplasty, given the easiness and efficacy demonstrated by the lower opioid consumption.

Continuous block is even more effective but at the cost of prolonged motor block.

A femoral nerve block under ultrasound guidance is performed placing a linear probe over the inguinal ligament. Once the femoral artery is identified proximal to its division, the iliopsoas muscle and the iliac fascia are outlined. The femoral nerve is located above the iliopsoas muscle, in the corner between the iliac fascia and the femoral artery. The needle is placed next to it with an in-plane view and usually 15ml are injected.

Trying to avoid motor blockade, the adductor canal block was developed by Manickam in 2009.⁵ This block is performed under ultrasound guidance injecting into the adductor canal. The adductor canal is an anatomic space extending from the apex of the femoral triangle to the adductor hiatus. Into this space two branches of the femoral nerves, the nerve to the vastus medialis and the saphenous nerve can be blocked giving minimum motor blockade without increasing the risk of falling.⁶

ACB can be performed in different sites into the adductor canal with no differences in terms of analgesia,⁷ but different volumes can make the difference because it has been demonstrated that the injection can spread into the popliteal fossa and reach the popliteal plexus thus ameliorating the analgesic effect.^{8,9}

The ACB is performed after the identification of the saphenous artery under the Sartorius muscle. A linear probe is placed over the iliac spine where this muscle origin then is moved caudally following the muscle. Then we identify the saphenous artery joining the muscle in the adductor canal. With an in plane technique the needle is placed laterally to medial under the Sartorius near the saphenous artery and a volume of 5 to 20 ml is injected

Posterior capsule The posterior capsule is innervated by a complex web of anastomotic branches identified as the popliteal plexus. These branches arise by the sciatic nerve from the tibial and the peroneal with a contribution of the posterior branch of the obturator nerve.

As for the femoral nerve, the sciatic nerve block is extremely effective in improving analgesia especially if performed in combination but as mentioned before at the price of an important motor block

SNB is more effective than local infiltration in the posterior capsule (LIA) but can mask surgical neurological damage of the common peroneal nerve which can be as frequent up to 10% in the patients undergoing TKA.

A sciatic nerve block can be performed along its course from the parasacral approach to the popliteal fossa ahead of its bifurcation.