

Gordh (from the Karolinska Hospital in Stockholm) has suggested that back pain is due to the muscle relaxation caused by the spinal anaesthesia, especially under stretched conditions, such as on the operating table. ([ii](#))

Spinal anaesthesia with lidocaine results in a profound motor block in anaesthetised segments ([iii](#)), which can lead to a supramaximal flattening of the lordotic arch causing extreme hyperextension of ligaments and muscles.

This in turn may impair blood circulation in muscles, leading to accumulation of lactic acid, and might possibly cause tiny, microscopic ruptures in the myofascial tissues, perhaps with miniature haemorrhages.

These changes may later induce inflammatory reactions in the lumbosacral area which, whilst relatively focal, are nevertheless painful.

Flattening of the lumbar lordosis will be more pronounced in the lithotomy position, as described by Schneider et al. ([iii](#))

The pain would typically be symmetric in the lumbosacral area and radiate into the buttocks and possibly thighs, and tends to respond well to ordinary analgesics and NSAIDS.

However, if this was a purely myofascial stress syndrome, one would expect the inflammatory reaction to subside within a few days, and the pain to resolve.

It may well be that the lumbosacral nerve roots are affected by the combination of the lithotomy

position and the spinal anaesthetic.

The lithotomy position may also contribute to pooling of the anaesthetic agent in the cauda equina, which increases the risk of neurotoxicity.

Gumus et al ([\[iv\]](#)) found that of 1170 patients operated on in the lithotomy position, 1% developed post-operative neuropraxic complications. Of the 12 patients affected, 2 developed permanent deficit.

[\[i\]](#) Holmdahl M H *Acta Anaesthesiol Scand* 1998; 42: Suppl.113, 8-12 Xylocaine (lidocaine, lignocaine), its discovery and Gordh's contribution to its clinical use.

[\[ii\]](#) Rushmer J, Miles W, Jones R, et al: *Acta Anaesthesiol Scand* 1997;41:557-64 Motor power pharmacodynamics of subarachnoid hyperbaric 5% lidocaine in the sitting position.

[\[iii\]](#) Schneider M, Ettlin T, Kaufmann M, et al: *Anesth Analg* 1993; 76:1154-7 Transient neurologic toxicity after hyperbaric subarachnoid anesthesia with 5 % lidocaine

[\[iv\]](#) Gumus E, Kendirci M, Horasanli K, Tanriverdi O, Gidemmez G, Miroglu C. *World J Urol* 2002 May;20(1):68-71 Neurapraxic complications in operations performed in the lithotomy position.