



Fulltext

Dextran Instead of Adrenaline to Prolong The Duration of Action of The Local Anesthetic in High Risk Patients

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Abstract

SUMMARYThis study was designed to investigate the efficacy of 40000MW dextran instead of adrenalin in prolongation of the duration of action of local anesthesia in high risk patients. Surgery was performed under local anesthesia ,lignocaine 2%with either dextran 40000 MW or adrenaline ,sciatic nerve and three in one block. The results showed no significant variations between the duration of action when the lignocaine 2% used with dextran or adrenaline. Accordingly, dextran is a good alternative for adrenaline in prolongation of local anesthesia in high risk patients.



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Local anesthesia, simply means injecting the local anesthetic ("freezing") around the nerve of the affected area to make it pain free. Technically speaking, local anesthetics are drugs that block sensory and motor nerve impulse conduction, mainly to produce temporary loss of sensation without loss of consciousness.(1✓). The loss of sensation is usually restricted to the area where the injection is applied while other areas of the body are not affected. For certain procedures, addition of adrenaline along with the anesthetic drug can be used to prolong the duration of local anesthesia. Local anesthetics can be applied close to the nerve of any part of the body, namely, a finger, an eyelid, the foot or a tooth that requires an operation without other areas getting anesthetized. However, the relatively short duration of action of local anesthetics has been a concern in intra- and post-operative analgesia. From the early age of modern local anesthesia, physicians and medical scientists had been struggling to control the active duration of local anesthetics. In this study, adding dextran to levobupivacaine decreased the risk of levobupivacaine toxicity while providing better analgesia. View. Show abstract. By contrast, the inclusion of adrenaline in solutions containing prilocaine and HA did not prolong the duration of IONB or SA. It is concluded that modulations of the viscosity of local anaesthetic solutions by the addition of macromolecular compounds strongly affect the duration of peripheral and central nerve blocks in experimental animals.