55. HAEMODYNAMIC EFFECTS OF UNILATERAL SPINAL ANAESTHESIA IN HIGH RISK PATIENTS

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This is a clinical ongoing prospective study, comprises of high risk patients ranging from ASA III to ASA IV.

Introduction: The aim of this study is to assess whether a unilateral block, with hyperbaric marcain 0.5%, will restrict the local anaesthetic agent to one side alone, or only minimally initially affect the non-operated side, thus sparing one sympathetic chain, and to see whether this measure will prevent the profound cardiovascular effects seen with the establishment of a spinal block, particularly in the very ill patient, as the group under study. Numerous studies have been done to see the Cardiovascular effects of spinal anesthesia. Ward et al (1) reported a decrease in mean arterial pressure of 21.3% following spinal anaesthesia. He also reported that a level of spinal anaesthesia to T5 resulted in an increase in the heart rate by 3.7%.

Materials & Method: After obtaining informed consent and approval from the Ethics Committee, 30 high risk (ASA III and IV) patients, aged between 40-90 years undergoing unilateral lower limb surgery were studied. All patients received a unilateral spinal anaesthesia using Hyperbaric Marcain 0.5% with a dose range between 1.1 ml to 1.8 ml according to the height of the patient. Patients were placed in the lateral position with the operated side down and the block established. They were kept in this position for 10 minutes, levels of motor and sensory blocks were assessed for the next 20 minutes. Alterations in the haemodynamic effect were recorded for the next 30 minutes.

Conclusion: We found that unilateral spinal anaesthesia is very effective in restricting the sympathetic block when hyperbaric solution is used in lateral position with operating side down in high risk patients coming for lower limb surgery. These patients showed minimal haemodynamic alterations.

Ward RJ, Bonica JJ, Freund FG et al: Epidural and subarachnoid anaesthesia: Cardiovascualr and respiratory effects: JAMA 1965; 191: 275.