Changes in haemodynamics and plasma catecholamine concentrations after field block for inguinal herniorrhaphy using lignocaine with adrenaline

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Abstract:

Haemodynamic changes and plasma catecholamine concentrations were measured in 12 patients aged 24 to 87 years after performance of a field block for elective repair of inguinal or femoral hernia. The local anaesthetic used comprised a mixture of lignocaine 0.5% with adrenaline 1:200,000; the dose of lignocaine administered varied from 3.8 mg/kg to 4.9 mg/kg. Plasma adrenaline increased by 326% and plasma noradrenaline by 75% at 10 minutes after completion of the block. Mean heart rate increased from 75 to 94 beats/minute after 20 minutes, whilst there were no obvious changes in systolic and diastolic arterial pressures. Potentially serious arrhythmias developed in two patients, thought to be related to the peak plasma concentrations of adrenaline produced. It is recommended that the dose of adrenaline used as described for this block should be reduced.