The Journal of International Medical Research
2003; 31: 152 – 155

Transient Blindness Following Hysteroscopy

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The potential adverse effects resulting from absorption of irrigation fluids during endoscopic procedures are well documented. Glycine, which is commonly used as an irrigation solution, has an inhibitory effect both on the central nervous system and on the retinal cells. We report the case of a woman who developed transient blindness following hysteroscopic myomectomy in which glycine was used as the irrigation solution.

KEY WORDS: HYSTEROSCOPY; TRANSIENT BLINDNESS; IRRIGATION FLUID; GLYCINE

Introduction

With the advent of fibre-optic light sources and high-resolution lenses, hysteroscopy became a valuable diagnostic tool and assumed an important role in the treatment of intrauterine pathologies. Adequate distension of the uterine cavity is required during both operative and diagnostic hysteroscopic procedures. The most commonly used distension media include carbon dioxide gas, and both low-viscosity fluids (e.g. glycine, dextrose, sorbitol/mannitol and saline) and high-viscosity fluids.[1-3]

Absorption of these solutions into the circulatory system can lead to fluid overload, hyponatraemia, potentially serious pulmonary and cerebral oedema, and cardiac arrhythmias.[1,4-6] Visual disturbances have been reported when glycine and its metabolites were used as distension media.[5,7]

This case report describes a patient who developed transient blindness following hysteroscopic myomectomy during which glycine was used for irrigation.

Case report

A 27-year-old infertile female was admitted to hospital for resection of a submucous myoma. The patient had hysteroscopic myomectomy under general anaesthesia with thiopental–fentanyl–vecuronium used for induction of anaesthesia and oxygen–nitrous oxide–isoflurane 0.8 – 1% for maintenance of anaesthesia.

The irrigation solution was connected to the side port of a Storz resectoscope. A total of 800 ml of 1.5% glycine solution was infused under a pressure of 120 mmHg. The myoma was excised. The procedure lasted approximately 55 min and was uneventful, and the patient recovered without any haemodynamic or respiratory problems.

On awakening the patient complained of loss of vision. The clinical signs were initially attributed to residual effects of anaesthetic agents or the ophthalmic ointment. The patient's eyes were wiped. About an hour after recovery, she was fully awake but remained bilaterally completely blind; she had no other complaints.