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Short Communication

Feasibility of urological procedures in paraplegic patients without anaesthesia- Our experience!

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ABSTRACT

The need of anaesthesia for urological procedures in paraplegic patients has generated a hefty debate in the past. The risk of autonomic dysreflexia (AD) has been a valid concern with Paraplegic patients. We present our experience of 4 cases where urological procedures have been successfully completed without anaesthesia in paraplegic patients under stringent intraoperative monitoring. One patient had sudden intraoperative hypertension which was managed with labetalol injection. All procedures were completed with no obvious complications. We suggest that under vigilant intraoperative monitoring, short urological procedures can be attempted in paraplegic patients when General or regional anaesthesia is not feasible.

1. Introduction

Urological procedures in Paraplegic patients has been described in the past with various anaesthetic means such as under general anaesthesia or spinal or epidural anaesthesia, there have been few isolated case reports of urological procedures without anaesthesia among paraplegic patients in the past, but its feasibility is still debated. The risk of AD on manipulation of urinary tract is a practical limitation in this context.[1,2] But it can be circumvented with stringent monitoring intraoperatively. We intend to share our experience of four cases in this regard.

2. Methods and Results

A 45-year-old-male with spinal cord injury at T10 spinal level, on indwelling Foley's urethral catheter for neurogenic dysfunction presented with large vesical calculus. Cystoscopy and laser lithotripsy were carried out without any anaesthesia. Amikacin one gram was administered just before cystoscopy. Blood pressure remained stable at 100/60 mm of Hg during the entire operative procedure, which lasted for ninety minutes. There was no complication of anaesthesia or surgery. Another patient 43-year old male with identical history and presentation underwent cystoscopy and laser lithotripsy with operative duration of 100 minutes with no obvious complications.

A 32-year-old male sustained complete tetraplegia at C-7 level in 2010 following a motor bike accident. This patient had been managing his bladder by intermittent catheterisation. In June 2017, this patient developed stones in urinary bladder. Open cystolithotomy was done without anaesthesia Systolic blood pressure remained stable around 110 mm of Hg during entire operative procedure, which lasted about 30 minutes. There was no immediate complication to anaesthesia or cystoscopy. Another 30-year-old patient with spinal cord injury at T5 level, on indwelling urethral catheter presented with intermittent haematuria, cystoscopy was done for this patient without anaesthesia, and there was sudden hypertension with systolic blood pressure reaching up to 180 mm of Hg, this patient was managed with labetalol injection intraoperatively and procedure was successfully completed with finding of cystitis.

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3. Discussion

Krassioukov et al[3] determined that AD ensued in 5.7% of cases with spinal trauma above T6 level. Snow et al[4] accomplished cystoscopy in 102 cases with spinal trauma; 57 patients had supra T7 and 45 patients had infra T7 lesion respectively. AD occurred in 40(70%) cases of supra T7 lesion and 17(30%) cases remained asymptomatic during procedure. No patient among infra T7 lesion group had intraoperative AD. Yoo et al[5] published a case of a middle aged patient with tetraplegia, who had "left basal ganglia and thalamic haemorrhage" secondary to AD intraoperatively during debridement of pressure sore under local anaesthesia. Spinal cord injury patients need to be made aware of potentially life-threatening complications of AD. "Subarachnoid block or Epidural meperidine" inhibits nociceptive signals from urinary bladder and avoids potentiation of AD. Situations where spinal cord trauma patients with supra T6 lesions do not consent for anaesthesia, nifedipine 10 mg can be administered sublingually before cystoscopy to avoid hypertension secondary AD.

4. Conclusion

We suggest that during urological surgeries of lower urinary tract, spinal cord injury patients who decline anaesthesia or are otherwise unfit for general or spinal anaesthesia, can be given option of anaesthesia less procedure with stringent intraoperative monitoring.

5. Conflict of Interest

None.

6. Source of Funding

None.

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