

Neuropraxia injuries following central neuraxial blockade in obstetrics



Dhorat, Zainab; Munshi, Sabah; Boothroyd, Kate; Lancaster Royal Infirmary (UK)

University Hospitals of
Morecambe Bay
NHS Foundation Trust

INTRODUCTION

The National Audit Project 3 conducted by the Royal College of Anaesthetists described an incidence of 0.2-1.2/100 000 of permanent nerve damage in the obstetric population [1].

We describe a case of a significant lumbosacral neuropraxic injury reported after a spinal anaesthetic.

THE PATIENT

- 30 year old female
- Parity 1
- Previous LSCS 2 years prior in South Africa
- Late booking. Arrived from South Africa in second trimester
- Uneventful pregnancy
- History of well controlled asthma
- No regular medications

CASE REPORT

- The aforementioned patient received a spinal injection using a 24g NRFit Sprotte needle at the L4/L5 space. She described transient unilateral paraesthesia on injection but developed a successful block to facilitate an LSCS.
- 18 hours post anaesthetic, this patient had persistent neurological deficit of the lower limbs. She had dense motor blockade bilaterally (0/5 power) with no ability to straight leg raise. Sensation was reduced in the L4, L5 and S1 dermatomal pattern on touch, cold and pin-prick test in the left leg.
- Urgent MRI of the whole spine and brain ruled out any time critical pathology.
- Management on the following days involved 12-hourly anaesthetic review with daily consultants reviews to assess neurological trajectory, neurology/ medical inpatient reviews and intensive rehabilitative support from therapy teams (figure 1).
- Hospital length of stay was 12 days post LSCS.
- Rehabilitation therapy continued for another 6 months post discharge.
- Clinical impression was in keeping with a proximal lumbosacral plexus injury. The spinal anaesthetic was a differential cause proposed by the neurologist.
- This lady went on to make a full recovery of her right lower limb, but residual nerve damage persisted in the left lower limb beyond 6 months with a global power of 4/5 in all movements.

DISCUSSION

This was an unusual presentation with a very slow regression of neurological blockade postoperatively; eventually uncovering a debilitating neuropraxic injury.

Hospital length of stay was considerably longer than the average post LSCS inpatient stay. While neurological complications are rare, they are not impossible.

Effective management in this instance involved a multi-disciplinary approach for early recognition and early specialist reviews with implementation of an intensive therapy programme to improve prognosis and recovery.

REFERENCES

[1] Royal College of Anaesthetists, 3rd National Audit Project (NAP3). National Audit of Major Complications of Central Neuraxial Block in the United Kingdom, 2009. https://www.nationalauditprojects.org.uk/NAP3_home?newsid=464#pt

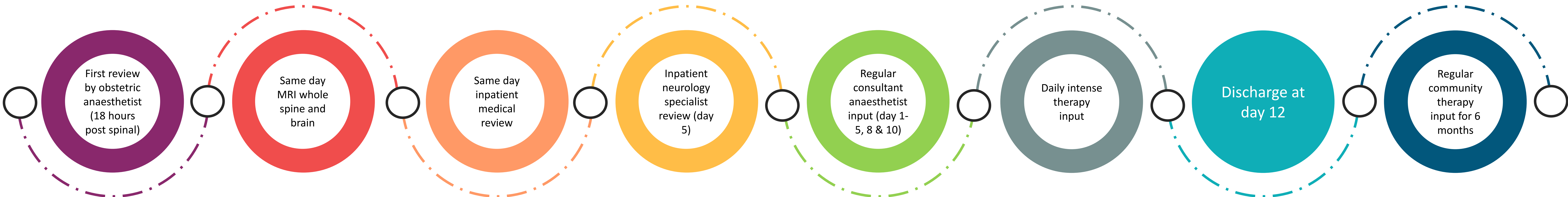


Figure 1: Summary of management steps taken with this patient in order to make a prompt diagnosis and maximise chance of recovery