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Femur Surgery in Multi-System Atrophy

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INTRODUCTION

Multi-System Atrophy (MSA) is a disorder characterized by two of the following symptoms; dysautonomia, parkinsonism and/or ataxia.[1] This neurodegenerative syndrome is a complex diagnosis that presents a riddle for perioperative management.

The classification often depends on predominant physical symptoms[1]:

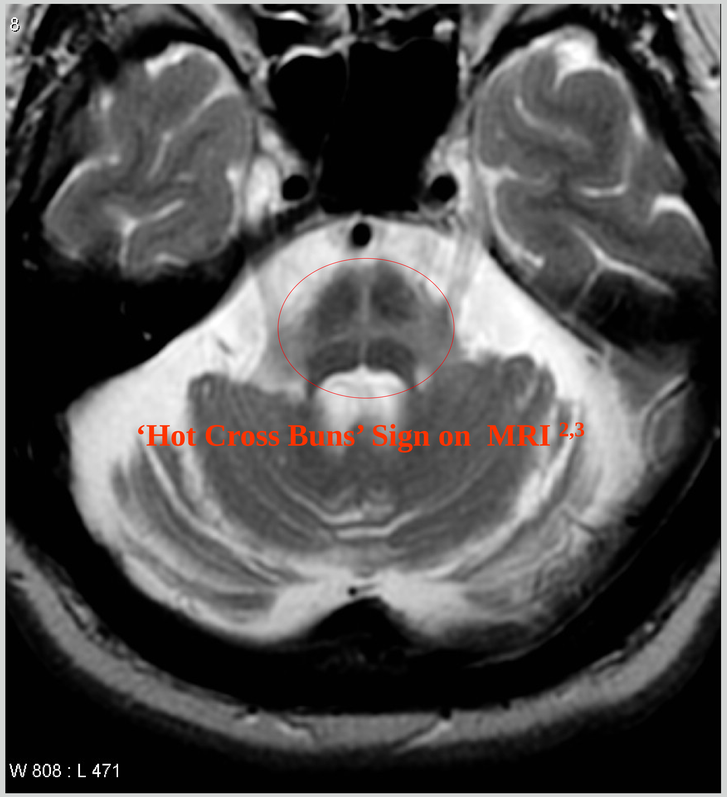
- parkinsonism (MSA-P), striato-nigral degeneration
- cerebellar ataxia (MSA-C), olivo-cerebellar atrophy
- autonomic failure (MSA-A), Shy-Drager syndrome

CASE DESCRIPTION

We present a case of a 67 year old female with a history of multi-system atrophy and dysautonomia (MSA-A), who was managed for right femur open reduction internal fixation with a continuous spinal catheter.

The patient was brought to the operating room, and initially, an awake right radial arterial line was placed. Then a continuous spinal catheter was achieved by threading an epidural catheter through an 18 guage Touhy needle into the intrathecal space.

Subsequently, 0.25% bupivicaine local anesthetic was slowly titrated in 1 ml increments with periodic assessment of the sensory level. Titrating intrathecal local anesthetic yielded surgical anesthesia to the T9 dermatome without vascular compromise.



DISCUSSION

Systemic manifestations of MSA include:

- autonomic dysfunction
- rigidity
- irregular movements:
  (hemiballismus, chorea, restless leg syndrome)
- facial muscle spasm
- postural instability:
  severe anterior spinal flexion (camptocormia)
- baseline hypophonia and strained speech
- high pitched nocturnal laryngeal inspiratory stridor
- sleep apnea, excessive daytime sleepiness
- diminished verbal fluency
- urinary dysfunction
- vivid, violent dreams
- Raynaud phenomenon

CONCLUSION

Multi-System Atrophy is a complex diagnosis with unique systemic manifestations, when identified can be managed with slow titration of intrathecal local anesthetic for lower limb surgery.

REFERENCES

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