ACUTE SPINAL INFARCTION: TREATMENT AND OUTCOMES WITH AND WITHOUT HYPERBARIc OXYGEN THERAPY AT FIONA STANLEY HOSPITAL

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Introduction Spinal cord infarction is a potentially devastating disorder commonly presenting with anterior spinal artery syndrome developing over minutes to hours, accounting for an estimated 1% of stroke presentations. Aetiologies range from aortic surgical complications, systemic hypotension and other rare causes including fibrocartilaginous embolism and vascular malformations. Diagnosis is clinical combined with restriction on diffusion-weighted MRI. There are no specific treatment guidelines. The evidence for hyperbaric oxygen therapy (HBOT) in acute spinal infarction is mixed. This case series describes ten cases of acute spinal infarction at Fiona Stanley Hospital (FSH), half of which received HBOT.

Methods Data for all MRI-proven spinal cord infarctions at FSH between 2014 and 2018 were reviewed.

Results Ten patients, median age 53 years (31–74), 60% male. Aetiologies: three fibrocartilaginous emboli, five likely atheroembolic disease, one antiphospholipid syndrome, one crypto-genic. Sixty percent presented with flaccid paraplegia ranging from levels C4 to T11. Five patients received HBOT within a median time of 31 hours from symptom onset, with average 15 treatments. Three patients received triple therapy of HBOT, pentoxyfiline and high-volume lumbar-puncture drainages and had median MRC muscle power of 5+ on discharge, compared with 2+ power in those who did not. Nine required inpatient rehabilitation, of average eight weeks duration, with median disability at discharge of 3 on the Modified Rankin Scale.

Conclusion Spinal infarctions can be severely disabling. Fibrocartilaginous embolism may be more common than previously thought. More research is needed on the role of acute triple therapy with pentoxyfiline, spinal drains and HBOT given the marked difference in this case series.

REFERENCES

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disorders of connective tissues. Nasal CSF leakage is extremely rare.1 Methods and results We present the case of a 40-year-old woman presented to hospital for few days history of postural headache associated with clear intermittent discharge from right nostril without any signs of meningism. There was no history of trauma. She has a background history of Marfan syndrome with associated complications of ASD repair at age 2, mechanical Aortic and Mitral valve replacement, aortic root repair, previous ST elevation MI with LV dysfunction, automated implantable cardioverter-defibrillator in situ, atrial fibrillation, and Hashimoto’s thyroiditis. Her regular medications are warfarin, bisoprolol and thyroxine. The clear nasal discharge was positive for β-2 transferrin confirming cerebrospinal fluid. Her CT Brain did not reveal any clear site of CSF leak. She had a flexible nasendoscopy which showed normal nasal passage way, no defect in nasal mucosa and no active CSF leakage. She was managed conservatively with strict bed rest and advised to minimise strenuous activity and heavy lifting. Conclusion Spontaneous cerebrospinal fluid leak is uncommon condition and frequently associated with hereditary disorders of connective tissues. Nasal CSF leakage is extremely rare.1 Testing β-2 transferrin has high sensitivity and specificity. Initial treatment may include bed rest, oral or intravenous hydration, oral caffeine or corticosteroids.3 4 If conservative therapy fails, surgical repair with nasal endoscopic approach is recommended.2 5

REFERENCES