Observations of patients with multiple sclerosis reporting endovascular procedures

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Background

- Venoplasty of the jugular or ayzygous vessels is premised upon a hypothesis that "chronic cerebrospinal venous insufficiency" is associated with MS.
- Endovascular procedures are not approved for treatment of MS in Canada.
- Scientific and medical authorities have cautioned that the theory and the efficacy of venoplasty and venous stenting for MS are unproven, and that the procedures are associated with risk.
- Follow up concerning patients reporting procedures abroad may inform clinical care issues.

Objective

Summarize MS-specialist observations during the continuum of care of MS patients seen between August 2010 and March 2011, who had sought endovascular procedures abroad.

Methods

- Patients seen by MS specialists (KK, CB and WH) at clinic appointments who reported having had endovascular procedures were prospectively tracked.
- Patients with a history of any pre-procedure MS specialist assessment were invited to participate by phone.
- Date and type of procedure, disability, symptoms, medications, adverse events, and behaviour changes were recorded through a retrospective chart review of the most recent pre-procedure and all post-procedure information.
- Patient-reported changes in symptoms were grouped into descriptive categories.
- The study was approved by the Biomedical Research Ethics Board.

Results - what we learned

- Eight patients were on at least two new antiplatelet or anticoagulant agents.
- Changes in DMTs and MS symptomatic medication use were observed.

Complications
- One patient had a negative workup for chest & neck pain, neck ultrasound and CT scan revealed 70% occlusion of a jugular stent.
- One fall-related fracture.

ENDOVASCULAR PROCEDURES IN MS

- One patient with increasing disability was admitted to hospital.
- The maximum change in disability scores was a worsening of 2.0 points on the EDSS.

Symptoms
- Nearly all patients reported initial improvement in at least one symptom.

Behaviour & Lifestyle
- Changes in physical and leisure activities and in the use of assistive devices were observed.

- 315 patients were seen at clinic appointments during the 6 month study period. 37 (11.6%) patients reported having had an endovascular procedure.
- 28 patients were seen at clinic appointment before and after their procedure were invited to participate in this study and 20 consented (9 RRMS, 9 SPMS, 2 PPMS, 11 females, 9 males, mean age 52.05 ± 10.62 years).
- There were 31 jugular, 9 ayzygous, and 1 vertebral venoplasties and 7 stents amongst the 20 patients.
- At first post-procedure appointment, one patient reported increased fatigue. All others reported initial improvement in at least one symptom.
- The most frequently-reported improved symptomatic categories involved balance, fatigue/energy, bowel/bladder, flexibility/dexterity/mobility, walking, cognition, and circulation.

Limitations

This was a small observational study with a limited duration of follow-up.

Conclusion

Patients undergoing endovascular procedures may discontinue both symptomatic and MS disease-modifying therapy. Start pharmacologic interventions associated with risk of hemorrhagic complications, and also may make lifestyle changes.

References