CCSVI: EVIDENCE FROM JORDANIAN EXPERIENCE

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Demographics

- Jordanian population 6,000,000.
- 3000 patients are diagnosed with MS in Jordan.
- The prevalence is 39/100,000.
- Two thirds of the patients are females.
- Annual cost per patient 8,500-12,500 USD, paid by the government.
CCSVI Screening Study

► 20 MS patients, 20 controls (IBR approval).
► Doppler sonography of the IJV (according to Zamboni et al protocol*).
► Few venograms and venoplasty “liberation procedure” (clinical service).

Reflux in left Internal jugular vein.
Mixed flow in the proximal IJV, normal flow in the distal part (regurgitation).
Ecatic carotid bulb indenting the IJV causing narrowing with abnormal flow.
- Echogenic flaps/membranes within the internal jugular veins in several patients.
- This finding was more common on the left side.
Serial images from a video demonstrating reflux of contrast in the left IJV for \( \approx 90 \) seconds.
stenosis
stenosis
Jugular Achalasia Sign

Angiogram of right IJV showing stenosis.

Contrast swallow study showing esophageal achalasia.
Patient Improvement Following Angioplasty (in varying degrees).

- Face colour.
- Decrease fatigability.
- Sphincter control (bladder and anal).
- Motor and sensory function.
- Visual acuity.
- Memory.
- Swallowing act.
- Speech.
- Sexual function.
THE BIG QUESTION??

IS
multiple sclerosis
rather a primarily
multiple stenoses
!!??