Update On Chronic Cerebrospinal Venous Insufficiency (CCSVI): Although The BRAVE DREAMS RCT Showed No Benefit For Balloon Venoplasty vs. Sham Control, The CCSVI Concept May Have Value In Multiple Sclerosis (MS) Treatment

2 primary Outcomes:  
1) Disability 2) New MRI lesions

Venous PTA had no additional effect on either measure in the relapsing remitting (RR) MS group at the 12 month follow up

Factors influencing the hemodynamic response to balloon angioplasty in the treatment of outflow anomalies of internal jugular veins

- Giacquinta et al., analysing almost 800 CCSVI patients who underwent balloon angioplasty of the jugular veins, demonstrated that patients who exhibit hypoplasia, external compression, or longitudinal or lateral defects did not respond to the treatment.

- Moneta suggested to perform on Brave Dreams data an additional post hoc analysis focusing on the PTA responders group identified by Giacquinta et al.

TRIAL LIMITATION

THE BAD NEW (NOT SO NEW)

- Flow restored in upright in the PTA arm in 79%
- CCSVI criteria solved in only 54% of the PTA arm
- However, no adverse events or complications from venous PTA.

IS THE HYPOTHESIS TO BE REJECTED?

OUTCOMES IN PTA RESPONDERS

The hypothesis can be considered valid if the sub-group with restored flow shows better.

Preop Morphology Affects The Effectiveness Of PTA In Jugulars
IS THE HYPOTHESIS TO BE REJECTED?
OUTCOMES IN PTA RESPONDERS

Jugular flow not Doppler detectable in upright at 12 months in the PTA arm:

At 12 months: monodirectional phasic jugular flow in upright:

OR=5.27; 95% CI 1.5-18.7

OR=2.9; 95% CI 1-8.7; P 0.05

CONCLUSIONS

• PTA safe but restored the flow in favour of gravity in the jugulars in just 79% of patients

• However, a post-hoc analysis demonstrates a significant decreased risk of new lesion development in patients with restored jugular flow, as compared to those with absent flow and/or to sham.

• Further analysis and investigations may provide the preoperatory ID of such a subgroup of responders.