

## LITERATURE REVIEW

**NEURO ELUTAX SV DRUG-ELUTING BALLOON VERSUS WINGSPAN STENT SYSTEM IN SYMPTOMATIC INTRACRANIAL HIGH-GRADE STENOSIS  
A SINGLE-CENTER EXPERIENCE****Phuyal S\***

\*Subash Phuyal, Consultant interventional neuroradiologist, Grande International Hospital, Kathmandu

Correspondence: drsphuyal17@gmail.com

Intracranial stenosis is a major cause of stroke worldwide, prevalent more in Asian populations. The treatment of ICAD (intracranial atherosclerotic disease) remains relatively conservative, owing to the trends following SAMMPRIS trial. SAMMPRIS trial established superiority of conservative management over intracranial stenting. However in SAMPRISS trial, significant re strokes were noted on medical management. Therefore, aggressive medical management does not offer the ideal solution and a novel treatment strategy for ICAD is desired.

Since 1980s, simple angioplasty for ICAD has been tried. Mainly cardiac balloons have been used for intracranial angioplasty however, owing to stiff nature of cardiac hardware these devices are difficult to navigate intracranially. Similar difficulties are encountered in intracranial stenting. This has resulted in higher percentage of procedural and periprocedural complications leading to relatively poor outcome.

Recently a CE certified intracranial drug eluting balloon was compared to Wingspan stents in a study 'Neuro Elutax SV drug-eluting balloon versus Wingspan stent system in symptomatic intracranial high-grade stenosis: a single-center experience.' It was a single-center, open-label, retrospective cohort study of 19 patients with symptomatic atherosclerotic intracranial high-grade stenosis treated with either Elutax DEB (drug eluting balloon) or Wingspan Stent from a tertiary stroke center in Switzerland.

Results: Eight patients received Elutax DEB. Median clinical follow-up was 10 months for the Wingspan Stent and 9.5 months for Elutax DEB ( $P=0.36$ ). No differences were found in the clinical baseline characteristics, with a median stenosis grade of 80% for the Wingspan stent and 81% for the Elutax DEB ( $P=0.87$ ). The compound endpoint 'ischemic re-event and/or restenosis' was significantly lower for Elutax DEB (13% vs 64%;  $P=0.03$ , OR 0.08 (95% CI 0.007 to 0.93;  $P=0.043$ ) than for the Wingspan stent.

Compared to previous cardiac hardware Elutax DEB is easy to navigate intracranially and allows delivery of paclitaxel within 30 seconds, which inhibits the ICAD/plaque regrowth. DEB angioplasty is indicated in symptomatic ICAD and stenosis of 70% or more. This study suggests that Elutax DEB angioplasty for ICAD is safe and with less complications as compared to intracranial stenting. This promising treatment option should undergo bigger trials and evaluations.

Available at: <https://jniss.bmj.com/content/10/12/e32.long>