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Relationship between Clinical Features and the Arc and Length of Dehiscence in Superior Semicircular Canal Dehiscence Syndrome: A Single Centre Review of 42 cases.

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Abstract

Introduction: Superior canal dehiscence syndrome (SCDS) is a rare disorder characterised by an array of audiovestibular symptoms due to a dehiscence of bone overlying the superior semicircular canal (SSC). In the presence of debilitating symptoms, surgical management, to plug or resurface the SCC is performed. Although Computed Tomography (CT) may overestimate the size or presence of a dehiscence due to a partial volume effect, it remains an invaluable diagnostic tool.

Objectives: To assess for correlation between the arc and length of dehiscence and clinical symptomology.

Method: A single-centre, single-operator retrospective analysis of 42 patients who underwent trans mastoid plugging of SCC with confirmed radiological dehiscence of their SSC between January 2008 and July 2019 was undertaken. Patients were assessed based on 7 pre-defined clinical symptoms. Length and arc of dehiscence's were evaluated by means of high resolution (0.5mm) CT (HRCT), using multi-planar reconstruction (MPR). Receiver Operating Characteristics (ROC), and more specifically the area under the ROC curve (AUROC) were used to assess for statistical significance.

Results: Our results demonstrate overall very little correlation between the arc and size of the dehiscence and symptoms. The only statistically significant correlation we found was between length of dehiscence and the presence of aural fullness.

Conclusion: SCDS is a debilitating condition with an array of symptoms on presentation. Whilst dehiscence length demonstrated a correlation with aural fullness, no other symptomology in patients with radiologically evident SCDS demonstrated a statistically significant correlation either against the length or arc of dehiscence.

Biography:

Charlotte studied her medical degree at the University of Southampton where she also obtained a Masters in Medical Science. Her clinical interest is in Ear Nose and Throat surgery, which she has trained in a number hospitals in the West Midlands in England, UK. She is actively involved in the delivery of undergraduate education and postgraduate education as well as clinical research.

\Speaker Publications:

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