Abstract title

Case study: Zygomatic Root Approach for Facial nerve decompression in a delayed onset post traumatic facial palsy.

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Introduction

We present a case of delayed traumatic facial nerve palsy following a road traffic accident. Due to failure of spontaneous recovery, the patient went on to have decompression surgery.

Background

A 38 year old gentleman was involved in a road traffic accident. His otological injuries were that of bilateral temporal bone fractures noted on a Computed Tomography (CT) Brain scan. In the emergency department he was initially documented to have movement on the right side of his face. However, he developed a right facial nerve palsy 48 hours following his presentation.

Progress

The patient was started on oral steroids but had minimal improvement. A CT Temporal Bone scan showed a right otic capsule sparing longitudinal fracture. Pneumolabyrinth was present in the labyrinthine segment of the right facial canal. An MRI showed enhancement of the right facial nerve from the labyrinthine segment to 2nd genu. Electromyography done showed no evidence of regeneration in the facial nerve.

Results

In view of the poor findings on EMG and no signs of clinical recovery after 3 months, the decision was made to undertake a facial nerve decompression via a transmastoid and zygomatic root approach. The Zygomatic Root Approach described by Tuncay Ulug provides a convenient access to the geniculate ganglion and labyrinthine segment without excessive temporal lobe retraction. Intraoperative findings were that of an edematous geniculate and labyrinthine segment with no obvious bony spicules, the mastoid segment of the facial nerve was normal. The tympanic segment was partially visualised as the patient had an intact ossicular chain with better hearing in his right ear. The patient is currently still 2 weeks post operation and we are continuing follow up to monitor recovery of his facial palsy.

Discussion

Spontaneous recovery of a delayed onset facial nerve palsy post trauma has been reported to be over 90%. As such, surgical intervention for a delayed onset facial nerve palsy is not usually undertaken. In this case study, it was offered to the patient due to failure of recovery after 3 months despite oral steroids and evidence of poor prognostic factors on the EMG. We continue to follow up this patient and hope his results will offer further guidance for the role of decompressive surgery in other cases of delayed onset facial nerve palsies with failure of spontaneous recovery.