

Longitudinal and Transverse Temporal Bone Skull Base Fractures

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Vertigo, tinnitus, facial palsy, otorrhea, hemotympanum and postauricular hemorrhage are the signs of the middle cranial skull base trauma. Long axis of the petrous pyramid would be used to classify the temporal bone fractures. 70 to 90 percent of the temporal bone fractures include "longitudinal" fractures. Due to the ossicles disruption in longitudinal temporal bone fractures, conductive hearing loss is more common in this form of fractures in comparison with transverse fractures. In about 10 to 25 percent of the longitudinal fractures, facial nerve injury would occur specifically in the region of the geniculate ganglion.

"Transverse" temporal bone fractures occur perpendicular to the axis of the petrous. About 10 to 30 percent of the temporal bone fractures would be transverse ones which would occur as a result of occipital skull trauma. Such transverse fractures typically begin at the site of injury in the suboccipital bone and extend to the foramen magnum, petrous temporal bone and usually to the foramen lacerum. Sensorineural hearing loss will occur due to damage to the cochlea, labyrinth or the vestibulocochlear nerve. In about 30 to 50 percent of the transverse temporal bone fractures, paralysis of the facial nerve will occur. Proximal region of the labyrinthine segment or internal meatus is the typical site of injury to the facial nerve in transverse temporal bone fractures. Lower cranial dysfunctions and jugular foramen syndromes can appear due to the extension of the transverse fractures to the jugular foramen [1-10].

Bibliography

1. Tos M. "Course of and sequelae to 248 petrosal fractures". *Acta Oto-Laryngologica* 75.4 (1973): 353-354.
2. Ghorayeb B Y and Yeakley J W. "Temporal bone fractures: longitudinal or oblique? The case for oblique temporal bone fractures". *Laryngoscope* 102.2 (1992): 129-134.
3. Fisch U. "Facial paralysis in fractures of the petrous bone". *Laryngoscope* 84.12 (1974): 2141-2154.
4. Ishman SL and Friedland DR. "Temporal bone fractures: traditional classification and clinical relevance". *Laryngoscope* 114.10 (2004): 1734-1741.
5. Yoganandan N., et al. "Biomechanics of skull fracture". *Journal of Neurotrauma* 12.4 (1995): 659-668.
6. Schuknecht HF and Gulya AJ. "Anatomy of the Temporal Bone with Surgical Implications". Philadelphia, PA: Lea & Febiger (1986).
7. Little SC and Kesser BW. "Radiographic classification of temporal bone fractures: clinical predictability using a new system". *Archives of Otolaryngology-Head and Neck Surgery* 132.12 (2006): 1300-1304.
8. Williams WT., et al. "Pediatric temporal bone fractures". *Laryngoscope* 102.6 (1992): 600-603.

9. Chang CY and Cass SP. "Management of facial nerve injury due to temporal bone trauma". *American Journal of Otolaryngology* 20.1 (1999): 96-114.
10. Hough JVD and Stuart WD. "Middle ear injuries in skull trauma". *Laryngoscope* 78.6 (1968): 899-937.

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