A 25 year old male presented to the emergency department with a traumatic head injury and deafness following an assault. Clinical examination, audiograms and CT imaging revealed bilateral transverse temporal bone fractures with secondary bilateral sensorineural hearing loss. Other than this devastating complication, these types of fractures can also lead to vertigo and facial nerve palsies. The patient was a candidate for cochlear implant surgery with satisfactory results. This case reiterates the importance of a thorough investigation of head injuries and the significance of CT imaging in investigating temporal bone fractures.