

PARIETAL FORAMEN OR PENETRATING FRACTURE OF THE SKULL

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Abstract :

In one's day-to-day medicolegal practice the Forensic pathologist comes across certain peculiar cases. One such unique case was brought for admission to the emergency wing of S.G.T.B. Hospital, Amritsar with the stab wound of the skull, as per history, inflicted by an icepick. At the time of admission the individual was declared dead. History and autopsy findings were so confusing that ultimately it came out to be a case of blunt trauma of the head leading to intracranial haemorrhage alongwith a parietal foramen of one of the parietal bone. Details of the case are discussed below.

Key Words :

Skull, Stab wound, Parietal Foramen, Trephine Hole and Craniotomy.

Introduction :

The nature of the object causing the injury on the scalp can be inferred from the external appearance of the scalp wound. But it is not possible that same type/shape of the injury will be found over the skull in every case, as the behaviour of the bone underneath the scalp injury play an important role in determining its effect. In medicolegal practice it is found that an old injury or congenital abnormality such as parietal foramina may play an important part in relation to the subsequent behaviour of the bone or may be mistaken for the old trephine hole¹ or with the stab wound of the skull.

History :

A 26 yrs. old Hindu male was brought to the casualty department of the hospital on 24.09.91 and he collapsed suddenly at the time of admission. The doctor on duty labelled it as "Brought-in-Dead" case. History revealed that the deceased had gone to meet his friend at the railway station. There he had a few bouts of alcohol alongwith his friend. After that he had a scuffle with another fellow. During the scuffle the victim sustained a blow with an icepick on the scalp (as told by an eye-witness) and fell down immediately. The matter was brought to the notice of the railway police. The police personnel shifted the victim to the hospital where he was labelled as "Brought-in-Dead" case by the doctor.

Autopsy Findings :

On autopsy, the following antemortem injuries were found :

1. A lacerated wound 1.5 x 0.5 cms. muscle deep was present on the back and left side of the head, 3.00 cm. above the posterior hairline.
2. A bluish contusion 4x3cms. on the back of left ear over the mastoid region. On dissection, underlying tissues were found to be infiltrated with fluid and clotted blood.
3. Multiple abrasions of dark brownish colour over the left ear, right side of the chest, right and left leg (over the shin) were present.

On reflecting the anterior and posterior flaps of the scalp, an aperture of 3x3mm was found on the back and near the superior border of the left parietal bone, 3.00cms. anterior to the lambda. Fluid blood was oozing out from the aperture. But there was no wound on the scalp corresponding to the aperture. After removing the skull cap, subdural haemorrhage over the right frontal lobe of the brain was detected, 100ml. of fluid and clotted blood was present in the cranium extending to the base of the brain. On cleaning the skull cap, it was found that the aperture was nothing except the parietal foramen. Though the cause of death was declared as compression of the base of the brain, yet the viscera was sent for chemical analysis. No poison was reported from the viscera.

Discussion :

The parietal foramen could easily be confused with the stab wound of the skull, had the autopsy not been performed carefully. To the best of our knowledge no such case has been reported in the literature i.e. simulation of parietal foramen with the stab wound of the skull. In different races the incidence of this foramen is 40-60%². It is a well known fact that parietal foramen may be confused with the old trephine hold or with craniotomy^{1,3}.

The differences between the parietal foramen and the penetrating fracture/stab wound of the skull (by an icepick or similar object) are given in Table-I.

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TABLE - I

PARIETAL FORAMEN	PENETRATING FRACTURE OF THE SKULL
1. LOCATION	
a) Posterior part of the parietal bone near its superior border about 3.5 cms. anterior to lambda	Anywhere over the skull
2. NUMBER	
a) Single or bilateral or absent	No fixed number
3. SHAPE	
a) Circular or oval	Depends upon the shape of the weapon
4. MARGINS	
a) Regular	Irregular
b) Smooth, as the continuity of the outer table of skull is maintained with the inner table	Broken
5. BLEEDING	
a) Blood oozes from the severed passing vessels i.e. emissary veins and / or branch of occipital artery.	Infiltration is present at the fractured site.
6. HEALING	
a) Absent	May/may not be present.

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