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Case Report

# Skull bone flap preserved in anterior abdominal wall medicolegal aspects (a case report)

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#### **ABSTRACT**

A case of roadside accident in which neurosurgeon preserved the skull bone flap in abdominal layers during operation but the facts not explained to family considering it to be a routine neurosurgical procedure. Autopsy surgeon was unaware of such practice and casually informed family about operation on abdomen in spite of the absence of any abdominal injuries, which created hue and cry. With great difficulty finally, the family could be satisfied about the approved procedure. The importance of communicating to the family is stressed on although everything was meticulously documented in the hospital file.

Keywords: Craniectomy, Skull bone flap, Abdomen, Autopsy, Communication, Documentation

# INTRODUCTION

Decompressive craniectomy is a common surgical procedure used to relieve intracranial hypertension followed by cranioplasty using patient's own bone flap. Bone flap removed has been preserved by various techniques such as deep freezing, preservation in bactericidal solutions, sterilization, preservation in a subgaleal pouch, and preservation in the subcutaneous pocket of anterior abdominal wall.[1-5] Preserving bone flap in patient's own body is cost-effective, immunologically compatible, and cosmetically pleasing. Patient's own body provides a good storage environment and reduces graft devitalization.[6]

We hereby report a case in which after craniectomy, bone flap was preserved in the subcutaneous pocket of anterior abdominal wall. The surgeon has not explained this point during consent to family members presuming it to be a routine procedure. We have discussed the medicolegal aspects of non-communication in this case. The case dates back to year 2006 but being an important case from medicolegal point of view we are reporting it.

#### **CASE REPORT**

A 45-year-old male met with a roadside accident and brought in an unconscious state in the emergency of Adesh Institute of Medical Sciences and Research, Bathinda, in the year 2006. Computed tomography scan showed acute subdural hematoma on the temporoparietal region along with brain contusions. Craniotomy is done and removed bone flap preserved in the subcutaneous pocket of anterior abdominal wall. However, due to seriousness of the injuries, patient succumbed and being a medicolegal case, body handed over to police for postmortem. Autopsy surgeon noted stitches

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Figure 1: Stitches on abdomen.



Figure 2: Skull bone popping out of abdominal wound after cutting sutures.



Figure 3: Skull bone out of the abdominal cavity.

on the abdominal wall, but he was not aware of this practice of preserving skull bone [Figure 1] in abdominal cavity and told casually to the relatives about some abdominal operation [Figures 2 and 3] that has been done on the patient in spite of the absence of any abdominal injuries. Relative got furious as why abdominal operation for head injury case and staged Dharna and started raising slogans against the neurosurgeon for unnecessary surgery. With great difficulty neurosurgeon and his team could explain about approved practice of preservation of skull bone flap in the abdominal wall.

# **DISCUSSION**

In 1920, Kreider<sup>[7]</sup> reported the first case of preservation of calvarial bone in the left hypochondrium. This was in a 4-year-old boy who had sustained a compound skull fracture. In the present case, approved procedure was performed by a qualified neurosurgeon in a tertiary care hospital. Neurosurgeon had earlier worked in a premier post-graduate institute and usually his team members use to inform about this practice to the relatives but in the present institute he being the only neurosurgeon and due to busy schedule could not properly explain the practice of preservation of skull bone in abdomen to the family members. However, he had mentioned the details of facts in his operation notes. Due to lack of awareness of autopsy surgeon regarding preservation of skull bones in the abdominal cavity and casual communication to the relatives resulted in a lot of hue and cry by the furious patient relatives. As they thought that doctor had unnecessarily performed an abdominal surgery. The documentation was proper in this case, but communication with relatives was missing. We the authors through this case want to give message to our surgeons that communication of your documents is equally important.

#### **CONCLUSION**

Proper communication, informed consent preferably video consent, and documentation are mandatory to prevent from such litigations and harassment. We must communicate our documentation and document our communication.

# Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms.

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Nil.

#### **Conflicts of interest**

There are no conflicts of interest.

# **REFERENCES**

- Morina A, Kelmendi F, Morina Q, Dragusha S, Ahmeti F, Morina D, et al. Cranioplasty with subcutaneously preserved autologous bone grafts in abdominal wall-experience with 75 cases in a post-war country Kosova. Surg Neurol Int 2011;2:72.
- Abbott KH. Use of frozen cranial bone flaps for autogenous and homologous grafts in cranioplasty and spinal interbody fusion. J Neurosurg 1953;10:380-8.
- Kreuz FP, Hyatt GW, Turner TC, Bassett AL. The preservation and clinical use of freeze-dried bone. J Bone Joint Surg AM
- Krishnan P, Bhattacharyya AK, Sil K, De R. Bone flap

- preservation after decompressive craniectomy--experience with 55 cases. Neurol India 2006;54:291-2.
- Odom GL, Woodhall B, Wrenn FR. The use of refrigerated autogenous bone flaps for cranioplasty. J Neurosurg 1952;9:606-10.
- Goel A, Deogaonkar M. Subgaleal preservation of calvarial flaps. Surg Neurol 1995;44:181-2.
- Kreider GN. Repair of cranial defect by a new method. JAMA 1920;74:1024.

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