Bilateral Extradural Hematoma: A Case Report

Anil B Patil, Nandini A Patil

Associate Professor, Department of Surgery, Dr. Ulhas Patil Medical College, Jalgaon, Maharashtra, India

Abstract

The occurrence of bilateral extradural hematomas is an uncommon consequence of cranio-cerebral trauma. In the literature bilateral, extradural hematomas have rarely been reported. This article is about a case of 45-year-old female who was admitted in our hospital with a history of road traffic accident. On admission, she was conscious but irritable having Glasgow coma scale 14/15. In stable condition, she was found to have visual agnosia for left eye. Her computed tomography scan showed a bilateral symmetrical site with asymmetrical dimensions. Patient underwent left occipito-posterior-parietal craniotomy with complete removal of extradural hematoma was done. Right occipital extradural hematoma was not removed.

Keywords: Blepharophimosis, Hematoma, Telecanthus

INTRODUCTION

Extradural hematoma is one of the common modes of presentation of head injury. Usually, it is unilateral often occurring in middle meningeal artery territory. Most of these cases of extradural hematoma require urgent surgical intervention. In some rare cases, there is bilateral occurrence of these extradural hematomas. Incidence of bilateral extradural hematomas has been reported from 2% to 25% in published literatures. Regarding the mechanism of occurrence of bilateral hematomas various theories have been put forward. Bilateral Hematomas most commonly results from underlying force in the antero-posterior direction rather than lateral, besides it can also occur due to extension of fracture line through midline, leading to formation of extradural hematomas underneath the fracture line.

CASE REPORT

A 45-year-old female was admitted to our hospital with history of road traffic accident, when admitted she was conscious but irritable. In stable condition, she was found to have visual agnosia in left eye. Her computed tomography (CT) showed extradural hematoma at left occipito-parietal region measuring 70 mm × 27 mm × 75 mm; similarly, another extradural hematoma was seen at right occipital region measuring 45 mm × 16 mm × 40 mm, with features of cerebral edema. Initially, she was treated conservatively. Follow-up scan showed increased left occipito-parietal hematoma with mass effect. Decision was taken to operate; left occipito-parietal craniotomy with complete removal extradural hematoma. Right occipital extradural hematoma was not removed. Intra-operatively there was a large left occipital extradural hematoma, but no evidence of superior sagittal sinus injury. After achieving good hemostasis closure was done in a usual fashion. Post-operative recovery was very uneventful.

DISCUSSION

The first bilateral extra dural hematoma (BEH) case was described by Roy in 1884, since then, BEH reports have been sporadic with an incidence range from 0.5% to 2% of all extra dural hematoma (EDH), in clinical practice such cases are rarely seen. Various theories are reported; stripping of Dura at two locations by a single directed force is an accepted reason. There are two types of bilateral extradural hematoma, in first type two bilateral hematomas are at different sites as in, one at frontal other at opposite occipital, other types where two extradural hematomas are bilaterally asymmetrical. In this case, we report bilateral symmetrical extradural
hematoma on same side. In either case need of surgery is debatable. Once the diagnosis of BEH is done, urgent surgical treatment should be considered, and in cases of asymmetric EDH, the responsible one for the neurological deterioration (when possible to identify) must be removed first. Cases in which the hematoma is small, it can be followed with close clinical and tomography observation or treated by embolization of the middle meningeal artery to prevent additional enlargement of EDH.

In our patient, only left sided occipital extradural hematoma was removed. This patient also had left eye visual agnosia and showed little improvement after surgery.

High mortality rates (42-100%) have been reported in the old series of BEH. With the widespread use of CT scan, early diagnosis has changed the surgical results and prognosis with the recent series reported a decrease in mortality rates to 15.7%. Mortality is significantly higher in unconscious patients with hematomas >150 cm³ size.

CONCLUSION

Patient underwent left occipito-posterio-parietal craniotomy with complete removal of extradural hematoma. Right occipital extradural hematoma was not removed and treated conservatively. Bilateral symmetrical extradural hematoma is rare.

REFERENCES