Management of Chronic Subdural Haematoma - A Review of 23 Cases

Pages with reference to book, From 32 To 33

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Abstract

Twenty-three cases of chronic subdural hematoma were admitted and treated at the neurosurgery department of A llied Hospital, Eaisalabad, from 1991 to 1993. All these patients were treated with simple burr holes and drainage. Six patients developed post-operative complications; infection in one, cerebral oedema in two, haematoma recurrence in two. There was no mortality. Follow-up revealed that 18 patients recovered completely, one still had neurological or mental deficit and four suffered epileptic seizures (JPMA 46: 32, 1996).

Introduction

Treatment for chronic subdural haematoma is one of the most rewarding neurosurgical procedures. It has a great potential for cure and multiple surgical procedures ranging from craniotomy to percutaneous tapping have been proposed[1]. However, evacuation of the haematoma through one or more burr holes is accepted by most neurosurgeons[2]. A study of 23 cases of chronic subdural haematoma treated by simple burr holes and drainage is presented.

Patients and Methods

Twenty-three cases of chronic subdural haematoina admitted_and treated at the neurosurgical center of Allied Hospital, Faisalabad, during the period Januaiy, 1991 to December, 1993 were retrospectively studied

For clinical evaluation on admission the classification of Markwalder was used (Table I).

Table I. Markwalder's classification.

Grade	Clinical status
G-0	Patient normal
G-I	Patient alert; Headaches, absent or mild neurological deficit such as reflex asymmetry
G-II	Patient drowzy, disorientated Variable neurological deficit such as hemiparesis
G-III	Stupurose but responding to noxious stimuli; severe focal signs such as hemiplegia
G-IV	Comatose with out motor responses to painful stimuli. Decerebrate or decorticate posture.

All patients were operated under local anaesthesia. Single or two burr holes were made followed by a cruciform incision of the dura and external neomembrane. The chronic subdural haematoma was evacuated and its cavity was rinsed with physiological saline. The external membrane was coagulated along the incision and wound closed in layers without inserting any drain in the haematoma cavity.

Results

Of 23 cases 20 were males and 3 females, with ages between 10 to 80 years. There was a histoiy of head injury in 19 patients. The correlation of clinical status withage is shown in Table II.

Table II. Age and clinical state of the patient on admission in neurosurgery department.

Age and years	Clinical Grade				
	I	II	III	IV	Total
10-20	1	-	-	-	1
21-30	1	-	-	-	1
31-40	1	-	-	-	1
41-50	-	-	-	-	-
51-60	1	1	-	-	2
61-70	8	4	2	-	14
71 - >	2	1	1	-	4
Total	14	6	3	-	23

Early results were estimated 30 days after surgery. Eighteen patients had an uneventful post-operative recovery and were discharged on 7th day without routine postoperative C.T. scans. Five cases developed post-operative complications. Two patients had symptoms of increased intracranial pressure on the second or third post-operative day. C.T scan revealed cerebral edema. They were treated with 20% mannitol intravenously and made a complete recovery. Two patients had residual haematomas and required second evacuationvia previous burr holes. They recovered completely. One patient acquired superficial wound infection on the 5th post-operative day, which responded to antibiotic therapy. Four developed generalised seizures and were treated with anticonvulsants.

Minimum follow-up period was 6 months. Of 22 patients who returned for follow-up, 18 were well, 4 who had been discharged with hemiparesis or dementia still had these symptoms but were independent in their everyday activities.

Discussion

The management of chronic subdural haematoma by burr-hole evacuation has been generally accepted[3-6]. The mortality of chronic subdural haematoma has significantly reduced in the recent years, mainly due to improvement in diagnostic techniques, which allows earlier recognition of the intracranial lesion and appropriate treatment.

Chronic subdural haematoma is more common in the elderly, but not infrequent in the young[1,7-10]. Twenty two percent in this series were younger than 60 years, with the youngest being 10 years of age. The commonest predisposing factor was previous history of head injury. Alcohol intake predisposes to chronic subdural haematoma[1,8]. Only one patient was alcoholic. Mortality ranges from 1 to 6%. There was no mortality in this series. The common complications of the evacuation of chronic subdural haematoma are cerebral edema and haematoma recurrence[1,3,10,11]. Recurrence of haematoma occurred in three patients and was easily treated by repeated irrigation and drainage of the haematoma cavity. Craniotomy or membranectomy was not required in any patient. Burr-hole evacuation is a safe and effective method of treatment for chronicsubduml haematoma and the recovery is complete in majority

of patients.

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