

A CLINICAL STUDY OF 38 CASES OF SUBDURAL HEMATOMA

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Subdural hematoma with its three clinical forms as acute, subacute and chronic, is well knowne complication of head injuries.

Although head injury is undoubtedly the main cause of all acute and subacute subdural hematomas, is not accepted by all neurosurgeons as the main cause of chronic subdural hematomas.

Uncertain history of severe or minor head injury and advanced age of the majority of patients suffering from chronic subdural hematoma has brought to mind the opinion that the main cause of chronic subdural hematoma, especially in old patients should be brain atrophy and its consequent low intracranial pressure rather than head injury.

Clinical study and material

This clinical study is based upon 38 cases of subdural hematomas who were seen and operated upon at Pahlavie Hospital and privately during the last five years.

Infantile subdural effusions are not included.

Among these patients there were only 2 females and the remaining 36 patients were male.

The age of the patients ranged between 14 months to 80 years.

Only 2 patients were under 10 years of age. One of them was a 14 months old boy who had developed subacute subdural hematoma in a car accident and the next one was an 8 years old boy with bilateral chronic subdural hematoma caused by slipping on the floor of the bath and striking his head on the ground.

There were 5 patients from 10 - 20, nine from 20 - 30, two from 30 - 40, seven from 40 - 50, and thirteen patiets from 50 - 80, years of age.

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No. of Patients	Sex		Age					
	F.	M.	0-10	10-20	20-30	30-40	40-50	50-80
38	2	36	2	5	9	2	7	13
	5.3%	94.7%	5.3%	13.2%	23.3%	5.3%	18.4%	34%

Regarding the nature of the trauma, road accident takes the first place, the cause of 3 acute, 4 subacute, and five chronic forms.

Minor injuries, such as hitting the head against the wall, has the second place, the cause of one of the acute and subacute and 14 of chronic subdural hematoma. Fall is the third cause, there are thirteen acute, and four in chronic subdural hematoma.

We had one patient with chronic subdural hematoma caused by high blood pressure. He was a young man and we could not find any other cause than the high blood pressure.

We had also another patient whose subacute subdural hematoma was due to use of anticoagulant drug. He was a 45 years old man who developed a right tibial fracture in a car accident, he was taken to a hospital where his leg was put in plaster. He did well for three weeks when he developed dyspnea, right chest pain and cough. It was diagnosed as pulmonary artery thrombosis, so was given anticoagulants. Five days later he developed head ache. In examination he was dysphasic and showed a right hemiparesis. During the following 24 hours he became comatose and soon went into a decerebrate state. Left carotid angiography showed a subdural hematoma. At operation a big subdural hematoma evacuated through a burr hole on the left parietal region. It was clear that hematoma was recently formed. During the operation, patients' breathing improved.

Since his condition deteriorated, on the next day, a large craniotomy was done and under the dura a huge clotted hematoma evacuated, but he never regained consciousness.

Regarding the first symptom experienced by the patients, headache has the first place. One in acute, all patients of subacute and 19 patients of chronic type of subdural hematoma, had head ache as the first symptom.

One patient, a young man, had headache and Jacksonian fit as the first symptom. His fit was a sensory one starting on the right side of his upper lip, spreading to the lower lip, lower eyelid, and then to his right thumb. Another patient whose first symptom was also headache,

and Jacksonian fit was an epileptic patient who developed subdural hematoma in one of his attacks when he struck his head on the ground.

There were two hemiparesis, in chronic, one hemiplegia, one subcoma and four coma in acute type.

The location of hematomas were 4 in frontal, 6 in temporal and 28 in parietal region.

In 14 patients, hematoma were on the right, in 18, on the left side and in 6 were bilateral.

Fundi changes were very interesting. Pailloedema was very rare in patients who were over 40 years of age. Only 3 of them had papilloedema, but of 17 cases who were under 40, six patients had normal fundi. these 6 patients had acute subdural hematoma, so there had not been sufficient time for papilloedema to develop.

In dividing the cases according to the acuteness of development of the hematoma, 7 cases had acute, 5 cases had subacute and 25 cases had chronic subdural hematoma. Among these 25 cases of chronic subdural hematoma, 7 cases were under 40 and the remaining 18 cases were over 40 years of age.

The mortality rate is very low in chronic subdural hematoma, (2 in 25 case or 8%) and very high in acute type, (5 in 7 cases or 72%). If we exclude one of the patients of acute type, who had subarachnoid collection of C.S.F. our mortality rate goes up to 86%. The only one patient who recovered was a young man who had both extra and subdural hematoma.

As for treatment, we usually make only a burr hole and wash the cavity with normal saline through a catheter.

In ward, patient lies on the bed with no pillow under his head. we also raise the lower end of the bed.

Patient is given two litres of dextrose saline solution in the first day and one litre in the second and third day and as much liquid by mouth as possible. On the fifth day, we lower the bed and put a pillow under the head.

This method of treatment has proved quite satisfactory and only in one case we had to resort to a second operation.