

**CHRONIC SUBDURAL HEMATOMA
A REVIEW OF 58 CASES**

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It has been repeatedly said with a great deal of truth that a chronic subdural hematoma may mimic almost any neurological disease 1, 2, 3, 4, In an attempt at finding a syndrome of the chronic subdural hematoma, all the consecutive cases operated by the author in the past 7 years were reviewed and analyzed. To exclude acute subdural hematomas and chronic hygromas only those cases where there was a definite subdural membrane and where black blood was encountered were included.

Sex

This study is based on 58 cases (37 admitted and treated at the Orient Hospital) of which 54 were males and 4 females. The high incidence of males cannot be explained on the fact that alcoholics are found more frequently among men than among women, (it has been said that alcoholics are more prone to subdural hematomas than others), as only five of our patients were known to drink in moderate amounts. It seems therefore that, for a reason unknown to the author, males are more prone to develop subdural hematomas than are females.

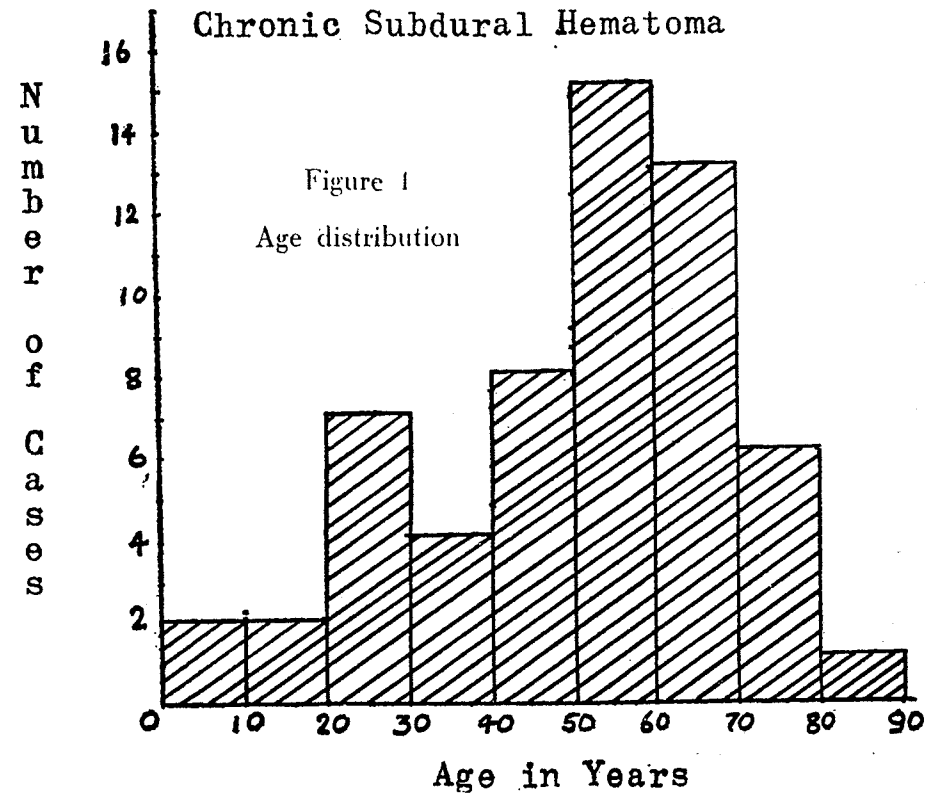
Age

It was found that most of these cases were in the older age group. If is born in mind that the relative number of elderly people in the population is smaller than the number of younger people, this predominance becomes even more evident (figure 1).

Location

There does not seem to be any predilection as to the side on which these hematomas form. There were 27 on the left side, 20 on the right side and 11 on both sides.

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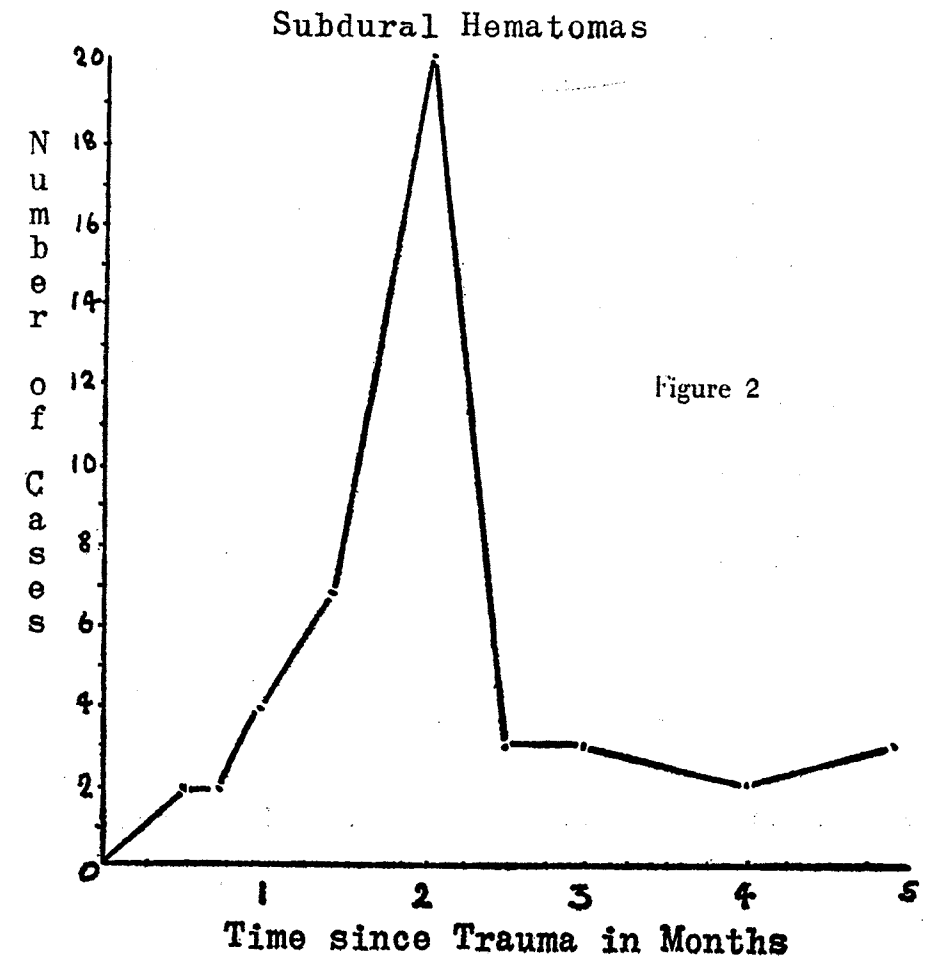
Etiology

Trauma is generally accepted to be at the origin of this condition. In our series there were only 11 cases where no history of trauma was obtained. In the others, the magnitude of trauma was classified as severe in cases where there was loss of consciousness for more than few seconds and for which the patient had to be hospitalized, as moderate in cases where there was momentary loss of consciousness without any immediate after-effects and where the patient was not hospitalized, and mild for those cases where there was no loss of consciousness. As seen in Table I (unless one considers that those patients who did not give history of trauma had such a mild one that they did not remember it), severe and moderate head injuries are more prone to result in subdural hematomas. The nature of the head injury was surveyed and it was found that road accidents were the most important single cause.

Of interest is the period that separates the head injury from the admission of the patient to hospital. It was found (figure 2) that in the

Table 1
Trauma and chronic subdural hematoma

No history of trauma	11
Mild	5
Moderate	21
Severe trauma	21
Loss of consciousness, post traumatic	21
No or momentary loss of consciousness, post traumatic	23



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Not stated	3
Road accidents	18
Falls	16
Fights	9
Accidental hits	2

great majority of cases, this period was in the range of 2 months. In our series, the longest period was 5 months and the shortest was 2 weeks.

Signs and symptoms

From the study of Table 2, dealing with signs and symptoms, one readily notices that the most important symptom is headache. Almost

Table 2

Signs and symptoms in 58 cases of subdural hematomas	
Headache	55
Hemiparesis	36
Drowsiness	24
Coma	13
Papilloedema	26
Aphasia	18
Vomiting	15
Incontinence of urine	12
Disturbance of gait	10
Focal seizures	9
Diplopia	8
Unequal pupils	7
Neck rigidity	7

every case with a subdural hematoma complained of headache. Only 3 cases did not. Of the signs, the most common finding was papilloedema and in left sided hematomas, aphasia. One very interesting finding was disturbance of gait. This disturbance of gait appears to be rather typical of subdural hematomas, and is not related to hemiparesis. These 10 cases had perfectly normal strength in the lower extremities and yet were unable to walk properly. They would walk on a wide base as if they had developed agnosia of walking. They would be afraid to walk unhelped and would fall to either side easily. Most commonly they would bend their knees as if bringing their center of gravity nearer to the ground. They would spread their arms in front of them and to the sides and move in rigid fashion in short steps. Once they are placed in front of a chair, they find some difficulty in lowering themselves and sitting down.

Headache being the major symptom deserves little more attention (Table 3). It was found that immediately after the injury, the patient may

Table 3

Headache in chronic subdural hematoma

No headache	7
Headache since accident	5
Headache coming after a free post-traumatic period	48
Headache not mentioned	3
Headache lateralizing	12
Not lateralizing	7
Not stated	31
Frontal	13
Temporal	5
Generalized	4
Not stated	28

or may not develop a headache. However there is a period during which the patient is completely free of headaches, then the headaches start to appear and gradually increase in severity. Figure 3 shows that this period of headache preceding admission to hospital is indeed a very short one. This is due to the rapid increase in intracranial pressure in subdural hematomas once the pressure starts to become elevated. This was found to be helpful in diagnosis. In cases where the patient has suffered from headaches for more than 4 weeks, the probability is that the cause for the increased intracranial pressure is not a subdural hematoma. Another interesting point about headache is that, when noted, it was often lateralizing.

Another two very important features in subdural hematoma are drowsiness which appears rather rapidly after the onset of the symptoms and the waxing and waning in the symptomatology.

It is interesting to compare some of the cardinal signs and symptoms of subdural hematomas and those of brain tumors in an attempt to find whether or not there is any significant difference between them. A group of 209 consecutive brain tumors operated upon during the first four years of this study in the same centers was used as a basis for the comparison (Table 4).

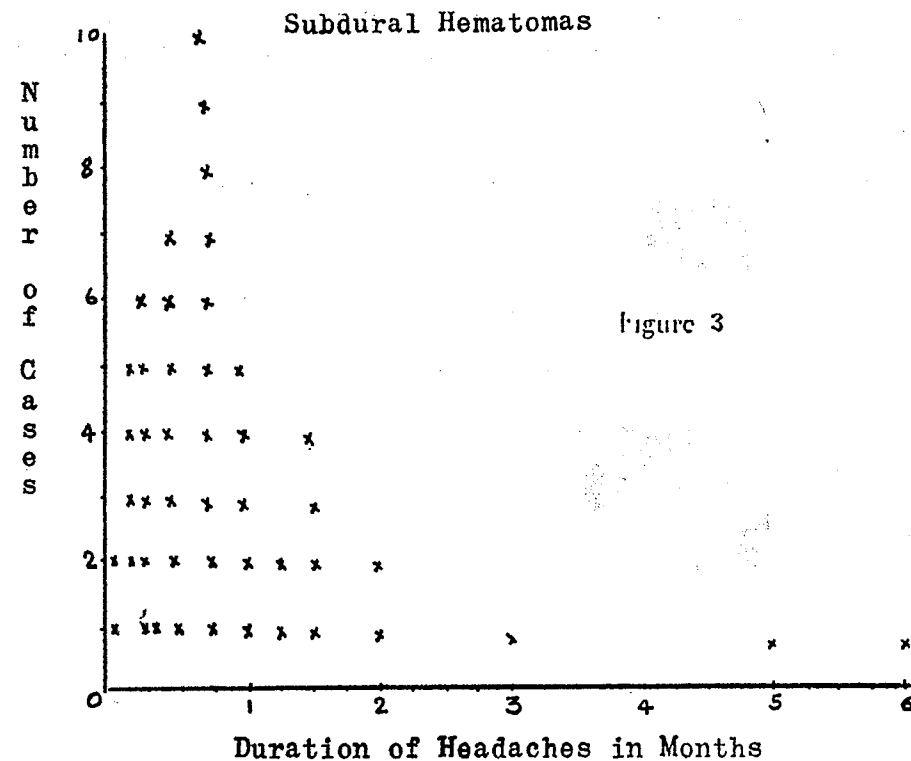


Table 4
Incidence of different symptoms in subdural hematomas and brain tumors

	Subdural hematomas	Brain tumors
Headache	95%	77%
Vomiting	27%	49%
Papilloedema	56.5%	69%
Seizure	16%	40% (supra-tentorial tumors)
Hemiparesis	62%	
Aphasia (in left side hematomas)	66.6%	

It was found that headache was more common in subdural hematomas (95%) than it was in brain tumors (77%), while vomiting was more common in brain tumors (48% as compared to 27% in subdural hematomas). Papilloedema did not show any significant predominance and was seen in 69% of brain tumors and in 56% of subdural hematomas. It is often said that seizures are uncommon in subdural hematomas. They were recorded in 16% of our patients, as compared with 40% of patients suffering from supratentorial tumors.

Summary

From this short review, emerges a syndrome of the chronic subdural hematoma. The patient is usually an elderly male, with a history of moderate or severe trauma to the head incurred about 2 months prior to admission, with or without immediate headache which subsides, then recurs about two to three weeks prior to admission. The headache becomes severer and the patient may develop a hemiparesis most frequently contralaterally, would become drowsy and may enter coma if not diagnosed and treated early. On examination, he would show dulled mental capacities and possibly papilloedema, with or without a hemiparesis and in one fifth of the cases a peculiar type of disturbance of gait. If there has been waxing and waning of the symptomatology in the past few days, this adds to the completeness of the picture.

Although there is a syndrome that characterizes cases of subdural hematomas, the picture can be very varied and there is no doubt that the final diagnosis rests with angiography, which shows a typical appearance of an avascular lens shaped area just under the parietal bone on the AP films or in some cases under the frontal bone in oblique films.

Résumé...

De cette revue générale, on met en évidence un syndrome d'hématome sous dural chronique.

Le malade est habituellement un homme âgé, avec une histoire de traumatisme crânien plus ou moins sévère, 2 mois avant l'admission à l'hôpital, avec ou sans céphalée immédiate, qui a régressé et ensuite réapparue 2-3 semaines avant l'admission. La céphalée devient plus importante et le malade présente une hémiparésie contralaterale avec torpeur et même coma, si le diagnostic n'est pas posé plutôt.

A l'examen il présente une baisse de niveau mental, avec éventuellement un oedème papillaire avec ou sans hémiparésie, et dans 20% des cas un changement particulier de la marche qui pourra aider le diagnostic.

Quelqu'il existe un syndrome caractérisant l'hématome sous dural, le tableau clinique est très variable et le diagnostic définitif est effectué par l'angiographie cérébrale, qui montre un image avasculaire, de forme d'une lentille biconvexe située sous l'os pariétal dans les images de face et quelquefois sous l'os frontal dans les images de trois quarts.

References

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