

## 65. The Change of the Adrenocortical Function under Some Treatments in the Head Injury Patients

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In order to obtain the effect of certain treatments for the head injury patients, the change of the adrenocortical function was investigated in 125 cases.

The adrenocortical function was examined by (means) of the (1) urinary 17-OHCS (2) urinary 17-KS (3) adrenocortical reserve and so forth.

The head injury patients were divided into the acute and the chronic. The former was applied the next treatments: a) Cocktail M-1 and Hypothermia b) Stellate ganglion block c) Predonisolon, ATP, Niamide, Vitamin C and Vitamin E, and for the latter cocktail M-1 and Hypothermia were not adopted in the acute stadium.

Following results were Obtained;

1) In the serious cases of acute head injuries, generally, the excretion of the urinary 17-OHCS, 17-KS increased and the adrenocortical reserve decreased for a long time.

2) In the cases, applied the treatments, the response of adrenocortical function was more slightly observed than in the cases without the treatments and that function recovered rapidly.

3) In the cases of chronic head injuries, generally, the excretion of the urinary 17-OHCS, 17-KS decreased and the insufficiency of adrenocortical reserve was observed in spite of the treatments.

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## 66. Statistical Study of 28 Cases of Subdural Hematoma

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In 3 years between September 1960 and September 1963, 28 cases of subdural hematoma were discovered and 26 of them were treated surgically. The youngest was 10 months old and the oldest 69 years old. Males were 25 and females were 3. Hematoma was in the left side in 14, in the right in 7 and bilaterally in 3 patients. Traffic accident due to motor-cycle was the commonest cause of subdural hematoma. Only 5 had linear fracture and 7 lost consciousness

at the time of injury. Lucid interval ranged from none to 15 years, mostly 1 to 3 months. Main complaints were headache (21), sensorium change (20), and personality change (14). Finding of optical fundi reflected the pressure of the spinal fluid faithfully except in acute case. Anisocoria was found in 5 critical cases. There were two death among the operated, and one death among the non-operated two. Prognosis is poor in the acute comatous patient. Simple burrholes-and-irrigation surgery proved satisfactory for the majority of chronic subdural hematoma.

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67. Some Consideration about the Operative Procedure for  
Chronic Subdural Hematoma and our  
"Skull Trephine Method"

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At present time 2 methods have been using for operation of chronic subdural Hematoma by neurosurgeon. The one is craniotomy method, that is removal of the hematoma membrane and hematoma contents and the other one is burr hole method, that is washing the hematoma contents out through the 2 or 3 small holes without removal of the hematoma membrane.

We have some experience of temporary emotional and neurological disorders after the craniotomy method in our series of chronic subdural hematoma and we are thinking these temporary disorders are due to either low intracranial pressure or hyperreexpansion after suddenly release from long time compression to cerebral hemisphere by removal of hematoma membrane. On the other hands, in cases of chronic subdural hematoma done the operation by the burr hole method showed recurrence in 15% and that reason is remaining the big solid parts of hematoma contents.

From our own experiences, we are thinking that it is better to remain the hematoma membrane for gradually reexpansion of brain and much bigger hole is need to wash the solid parts out.

The new method has developed and the big skull trephine (5 cm in diameter) was used to make a bony button for big hole of skull. The window of dura mater and hematoma membrane is 9 cm<sup>2</sup> and is considerable larger than burr hole method. All parts of hematoma are able to wash through the big hematoma window out.

We have experienced this operative procedure in 7 cases of chronic subdural hematoma without any disorders postoperatively.