

REFERENCES.

- [1] KERN, R. A. *Amer. Journ. Med. Sci.*, 1928, clxxvi, 405.
 [2] DAVIES, J., and CAMPBELL-ANDERSON, W. *Brit. Med. Journ.*, 1929, p. 12.
 [3] MANSON-BAHR, P. *Lancet*, 1927, ii, 1414.
 [4] BAMFORTH, J. *Ibid.*, 1927, i, 818.
 [5] WORDLEY, E. *Ibid.*, 1927, ii, 1290.
 [6] THOMPSON, T. *Lancet*, 1928, ii, 1385.
 [7] MANSON-BAHR, P. Manson's "Tropical Diseases," 8th edition, p. 249.

A CASE OF SPONTANEOUS SUBDURAL HÆMORRHAGE.

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THE following case is recorded, as it presents many features of a most unusual character :—

A Lance-Bombardier, aged 38, of splendid physique, was admitted to hospital on March 20, 1929, having been detained for two days, complaining of abdominal discomfort with vomiting and diarrhœa. He gave a history of having had similar symptoms about a week previously, which had got better. He attributed the return of his symptoms to a party which he had attended the night before he was detained. His medical history sheet showed no entry for previous abdominal complaint.

On examination, nothing abnormal was noted in his abdominal cavity ; nothing abnormal was found in his urine. A little mucus, but no blood, was present in his stools. Nothing abnormal was noted in his nervous, circulatory, or respiratory systems. He was treated with magnesium sulphate, one drachm two hourly, and put on fluid diet.

His symptoms continued for four days without much amelioration, but then showed an improvement. His stools proved negative to both enteric and dysentery groups. On the night of March 24 he became very restless, and it was noted that his speech was affected. He was given potassium bromide, 15 grains, without effect. On examination the next morning the following condition was found. Stammering speech, nystagmus in both eyes ; pupils equal but reacting to light and accommodation ; no headache ; slight twitching of muscles of face ; inco-ordination of muscles of upper extremities but no apparent loss of muscular power ; no paralysis ; twitching of muscles of extremities ; deep reflexes increased ; Babinski's sign absent ; ankle clonus absent ; tache cérébrale present ; urine loaded with albumin ; systolic blood-pressure 140 mm. of Hg. Lumbar puncture was performed, the fluid drawn off was at normal pressure and of normal appearance. Laboratory report on the fluid showed the absence of sugar and globulin, the cell-count was 1.1 per cubic millimetre. The fluid gave

a negative Wassermann reaction. There is no record of a specific history in the case. Patient got more and more restless throughout March 25, and, about 4.30 p.m., became violently delirious and had to be forcibly kept in bed; he became incontinent of urine and fæces, and his speech got inarticulate. It was then thought that he was suffering from uræmia. This condition continued throughout the evening and night with a few short intermissions, the longest of which was twenty minutes. At 4.30 a.m. on March 26 he sank into a comatose condition with cerebral breathing of Cheyne-Stokes rhythm; his pupils were dilated and equal in size. He remained in this comatose state up to about 1.15 p.m. on March 26, when he had a final convulsive fit in which he died.

A post-mortem examination was carried out by Major J. S. K. Boyd, R.A.M.C., D.A.D.P., Madras District. His report is as follows:—

“The body is that of a well-nourished man. There is considerable post-mortem staining, and some bruises are present on the right shoulder and wrist.

“*Thorax.*—The lungs are fixed to the parietal pleuræ by old adhesions. The left lung is bound down in this way throughout its whole extent, the right lung posteriorly. On section both lungs appear normal.

“The heart is covered with fat but the musculature is not affected. The wall of the left ventricle is somewhat hypertrophied, otherwise there are no abnormalities. The valves are free from vegetations and there is no atheroma of the aorta.

“The mediastinum shows nothing abnormal.

“*Abdomen.*—The stomach is in a contracted condition. Neither stomach nor intestines show any abnormality. The pancreas weighs 4 ounces and feels very hard. It was encased in very dense connective tissue and firmly bound to the duodenum and posterior abdominal wall. The lobulation is unduly marked. No fat necrosis could be seen. A chain of small hardened glands extends from the head of the pancreas along the vertebral border.

“*Spleen.*—Weighs 5 ounces. Normal in appearance and on section.

“*Liver.*—Weighs 66 ounces. Normal in appearance and on section.

“*Kidneys.*—Each weighs 8 ounces. They are large, rather irregular in shape, paler than normal and show a very slight mottling. The capsule strips readily.

“*Suprarenal Glands.*—Appear normal in every way.

“*Bladder.*—Distended with urine.

“*Skull.*—No evidence of injury. A large subdural hæmorrhage was found covering the complete parietofrontal aspect of the right cerebral hemisphere. This has exerted considerable pressure on the brain which is seen to be flattened.

“The hæmorrhage does not extend to the base of the brain. The bleeding point seems to have been a small vessel on the surface of the piaarachnoid membrane.

"There is no hæmorrhage into the substance of the brain, and the vessels of the circle of Willis are normal.

"There is no injury to the base of the skull.

"Portions of pancreas, gland, kidney and brain taken for section,

RESULTS OF MICROSCOPICAL EXAMINATION.

"*Pancreas.*—There is an increase of young fibrous tissue surrounding the acini. The secretory cells and the islets of Langerhans appear normal.

"*Gland.*—Shows slight chronic lymphadenitis. Otherwise it is normal.

"*Kidney.*—The glomeruli show congestion of the capillary tuft, but there is no exudate into Bowman's capsule and no proliferation of the epithelium of the capsule.

"The secretory tubules show some granular degeneration and desquamation of epithelium. There is no increase of interstitial tissue; blood-vessels are normal.

"These changes are sufficient to account for the albuminuria which was present. They are, however, of a recent nature, and not in any way suggestive of nephritic condition giving rise to uræmia.

"*Brain.*—Sections were cut through a portion of the cortex which showed on the surface some adhesion of the clot.

"The vessels in the brain substance are markedly congested. There are early degenerative changes in the brain tissue immediately underneath the clot. The clot itself shows pigmentary changes suggesting that it is of some days' standing.

"*Conclusions.*—The cause of the patient's illness and death was cerebral hæmorrhage. This hæmorrhage is of an unusual type, and its causation is obscure."

CONCLUSION.

I think that there is little doubt that the cause of death was the subdural hæmorrhage which was of several days' standing, as shown by the fact that certain pigmentary changes had taken place in the blood-clot. The absence of any history of fall or injury, any lesion of the skull, specific history, high blood-pressure or an atheromatous condition of the blood-vessels would point to it being one of those spontaneous hæmorrhages of obscure origin.

It is extraordinary that a hæmorrhage of this magnitude could have been present for days without giving rise to that train of symptoms which is usually associated with such a condition.

I have to thank Lieutenant-Colonel E. Bennett, R.A.M.C., for kind permission to publish this case.