A CASE OF ALBUMINURIA; DEATH RESULTING FROM ACUTE OEDEMA OF THE BRAIN.

By HENRY WILCOX, M.B., M.R.C.S.

THE following case, which came under my notice while returning from my holiday trip to New York, may be worth publishing, as the carefully recorded temperature throws some light upon the etiology of uræmic coma:—

S. T—, aged fifty-one, a gentleman of spare appearance, florid complexion, looking somewhat older than his age, occupied the seat opposite to me at the saloon table. From my observations, and from several conversations we had together, I found he was in a shattered state of health; his habits were those of a man who for a long time had drunk freely of spirits, giving me the impression that he was suffering from chronic Bright's disease, accompanied by the usual dyspepsia and want of appetite. On the morning of the fourth day of our voyage he appeared to be in better health and spirits than during the previous three days; his skin was clearer and he ate more; later in the day, however, he complained of severe occipital headache. He was not alarmed at this symptom as he had frequently had it before in a milder degree, when it generally passed away in a few hours. He declined to apply for the advice of the surgeon of the ship. Towards the middle of the day, his headache still continuing, he retired to his stateroom, with the intention of "sleeping it off," as he expressed it. Nothing more was seen of him until 4 P.M., when the bedroom steward finding him to be sleeping soundly left him undisturbed. At 6 P.M. he was still sleeping, and the attention of the surgeon was called to him. This gentleman (Dr. Coffey) soon afterwards asked me to visit the patient with him. We found he was in a state of profound coma. Our combined efforts failed to rouse him in the least. His breathing was stertorous; face dusky, slightly oedematous; pupils fixed, insensible to light, and the left larger than the right; carotids pulsating strongly; no abnormal sounds about the heart's action; pulse 72, hard; temperature 97°; legs and feet slightly oedematous. We were fortunately able to make an examination of the urine, which, so far as we could learn, had been normal in quantity and general appearance; it was highly albuminous, and we estimated roughly that the deposit, after boiling and the addition of nitric acid, was one-third of its bulk. From these evidences we concluded that the patient was in a state of uræmic coma. Dr. Yarrow of Philadelphia, who was also a passenger on board, endorsed this opinion, and watched the case to the end with us. The treatment we employed was first wet cupping over the loins to twelve ounces; there was no laborandi on board, but we administered hydragogue cathartics by enemata, subcutaneous injection of digitalis, mustard sinapisms to the nape of the neck and calves of the legs, and occasional nutritive enemata with a little brandy. In spite of our efforts the patient showed no signs of improvement, the coma becoming more profound; convulsive fits came on at intervals, greatly exhausting his vital powers. He died after a severe paroxysm about four o'clock in the morning. During the few hours that we were in attendance we were able to make careful observation of the temperature, which we took constantly in the axilla at intervals of about half an hour from nine o'clock at night until the time of his death. Early in the evening there appeared an initial lowering of the temperature; at 7 P.M. it was 97°; the pulse 72, full, incompressible; carotids strongly pulsating. At 9 P.M. a slight rise in the temperature was noted; it was then 99°. At 10 P.M. it was 100.2°; at 11 P.M., 101.4°; at midnight, 102°; at 1 A.M., 103.4°; at 2 A.M., 105°; at 3 A.M., 107°; and at 4 A.M., 109.2°. The last record of temperature was taken both in the axilla and rectum. The thermometer in the rectum was expelled in the death struggle; it indicated 109.2°, the same as that in the axilla; had it remained longer, a higher temperature would probably have been recorded. As the temperature began to rise the pulse assumed a different character, becoming faster, smaller, and easily compressible; shortly before death it was 135 per minute, and the respiration 38.

The point of interest in this case is the remarkable rise of temperature preceded by a stage of initial lowering, and between these two conditions there was a stationary period

from 7 to 9 P.M., in which the temperature was normal. The presence of urea in the blood, or even its product of decomposition—carbonate of ammonia,—may account for the coma and convulsions, but they have not been found to produce this influence upon the temperature. Variations of temperature, however, in the apoplectic state accord so well with the above that we may fairly assume that our patient died not so much from the toxic state of his blood as from a sudden acute oedema of the brain, with perhaps effusion into the ventricles. This view of the case is, I think, supported by the following considerations:—1. The secretion of urine at the time of seizure was normal or increased in quantity. 2. The sudden onset of cerebral symptoms preceded by intense occipital headache. 3. The strongly pulsating carotids, and full incompressible pulse at the beginning of the attack. 4. The variations of temperature were the same as those observed in cases of cerebral hæmorrhage, in which death occurs in from ten to twenty-four hours.

Woolwich.

LITHOLAPAXY IN MALE CHILDREN AND MALE ADULTS.

By SURGEON-MAJOR D. F. KEEGAN, M.D. DUB.,
RESIDENCY SURGEON, INDORE, CENTRAL INDIA.

DURING the past two years I have published four papers¹ giving details of a considerable number of litholapaxies performed on male children and male adults at the Indore Charitable Hospital, Central India. At a time when the treatment of stone in men, women, and children is attracting so much attention in Europe, by reason of the revival of the "high" operation, perhaps it may not be amiss if one who has enjoyed considerable opportunities of treating stone in India were to place before his professional brethren in England his experiences of litholapaxy in male children and male adults. I advocate litholapaxy in preference to lateral lithotomy in the treatment of the great majority of stones we meet with in male children, principally for two reasons—viz., rapidity of cure and absence of a cutting operation. Litholapaxy as applied to the treatment of stone in male children, being a new departure in surgery, must undoubtedly be submitted to the accumulated experience of practical surgeons in all parts of the world before a positive conclusion can be arrived at as to its practicability and value. I therefore beg to submit to the judgment of surgeons in Great Britain the record of a considerable number of litholapaxies performed on male children in India. Having discussed this operation in its application to the treatment of stone in boys, I shall subsequently deal with some points of interest connected with its performance in the adult male. Believing, as I do, that Bigelow's operation will, in the near future, supersede to a very large extent lateral lithotomy in the treatment of stone in male children, I am all the more anxious on that account that my predecessor at Indore, now retired, Deputy Surgeon-General T. Beaumont, should obtain the credit of having originated the idea of the feasibility of practising litholapaxy in boys. I, however, was the first to put his ideas on this subject into practice. He had performed six lithotrities successfully on male children at Indore prior to my succeeding him, and had ordered to be sent from London lithotrites and evacuating catheters suited to the performance of litholapaxy in boys a few months before he left Indore for Hyderabad in the Deccan. He was not the first to perform litholapaxy in boys, simply because he had not an opportunity of doing so at Hyderabad; but had he remained on at Indore he would undoubtedly have put his ideas into practice at the first favourable opportunity. Soon after my joining my present appointment at Indore the lithotrites and evacuating catheters suited to the performance of litholapaxy in boys arrived from London, but I must confess that for some time I hesitated to use them. Like many surgeons practising in India, lateral lithotomy in male children had hitherto proved a very successful operation in my hands, and therefore I was naturally somewhat loth to change it for any other method of removing a stone from a boy's bladder. However, in December, 1881, I performed

¹ Indian Medical Gazette, May, 1884, June and September, 1885, and June, 1886.