A SUCCESSFUL CASE
OF
PARACENTESIS CAPITIS.

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COMMUNICATED BY
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Received June 18th.—Read June 28th, 1864.

I BRING the following case before you as an example of the value of an operation by some considered inadvisable, and of which the successful cases recorded are few.

On June 8th, 1861, I attended Mrs. M— of a fine healthy boy. When fourteen days old the child sustained a fall, apparently without any ill effects; but at the end of three weeks a protuberance appeared on the crown of the head, at first circumscribed, but gradually becoming diffused.

The head then began slowly to enlarge, and on the 3rd August, 1861, my opinion was asked. The child was two months old, well nourished, noticed surrounding objects, and slept well. His features were not expressive of pain,

there was no strabismus, no twitching of the limbs, and no convulsions, or other indication of irritation of the nervous centres. The head was very large in comparison with the body, which was well developed and of ordinary size. The enlargement was general, and uniform; fontanelles not protruding; sutures all widely separated, especially the coronal and sagittal. The eyeballs more prominent than natural, the upper part of the globe only visible, the lower lid covering the two lower thirds, even beyond the pupil. When the child's attention was attracted it threw back its head, and by this means, no doubt, was enabled to see, the pupil becoming then uncovered. When the head was placed between the observer and a candle it was perfectly transparent. This was most perfect when viewed from side to side, and even anteriorly through the orbits and occiput.

At this time the tincture of iodine was applied each day to the scalp, and a grain of calomel was given twice a day. This treatment was continued until the 15th August, without any improvement, when a grain of iodide of potassium was substituted for the calomel.

A gradual increase of the head occurred, and on September 25th, 1861, it measured, circularly, the tape being placed over the parietal eminences, twenty inches, and laterally, encircling the chin, twenty-one inches.

At this time cod-liver oil and the phosphates of iron were commenced, with occasionally the application of the croton-oil liniment to the scalp.

April 28th, 1862.—An improvement is perceptible in the condition of the child's health, but the head continues to increase, and now measures, circularly, twenty-four and a half inches, and laterally twenty-four and a quarter inches, the head now increasing at the rate of an inch in two weeks. It falls to the side upon either shoulder.

The frontal bone projects greatly, and the parietal bones are widely separated. The surface is very tense, and fluctuates over a space fully four inches across, and the whole length of the sagittal suture. The face appears very small

in comparison with the head. Its triangular contour is very peculiar.

The intellectual faculties appear to be developed to the same degree as is usual for the age ; hearing appears perfect ; the limbs are moved well, and the alvine secretions are natural.

At this time I considered that, as the treatment with iodide of potassium, &c., had been continued for ten months without benefit, but, on the contrary, with an increase in the collection of the fluid ; as the emaciation was great ; as the child was born of healthy parents, without any tubercular history ; and as the primary cause of the disease was an accident, the case was one peculiarly suitable for the treatment by paracentesis.

This opinion was fully coincided in by my friends Dr. Heath and Dr. Philipson, who saw the case at this time. The parents of the child also, having been fully warned of the uncertainties that might be expected, willingly sanctioned the proceedings.

May 3rd, 1862.—In the presence and with the kindly assistance of Drs. Heath and Philipson, the child being supported, I carefully selected a spot quite free from superficial veins, on the left side, about one inch and a half from the anterior fontanelle, and introduced a trocar and canula, about the size of an ordinary crow-quill, through the coronal suture. Directly upon the withdrawal of the trocar, a clear, colourless liquid began to flow, of the same consistence as water, and closely resembling it. After about ten ounces had been allowed to flow the canula was withdrawn, and a piece of lint applied. Not a single drop of blood was lost. The head was then firmly encircled in broad strips of adhesive plaster, laterally and circularly. A little weak wine and water was administered, and the child placed in bed, as slight symptoms of faintness were noticed. Upon the withdrawal of the fluid the scalp began gradually to be less tense, more and more concave, and finally exhibited a most singular appearance, the edges of the separated bones being boldly visible, enclosing a hollow space.

The fluid was of sp. gr. 1010, and contained not a trace of albumen. The fluid continued to flow during the whole of the next twenty-four hours, and a few ounces must thus have escaped.

The day after the operation slight febrile symptoms occurred, but upon the administration of a diaphoretic they gradually subsided.

On the seventh day fresh strips of plaster were applied.

On the tenth day, about 2 a.m., a strong convulsion occurred, which was said to have affected the whole body, but when I saw the child, shortly afterwards, the movements were confined to the right leg and arm, contractions alternating with relaxations, the child remaining quite sensible; the gums were very tense, two teeth appearing ready to protrude. I accordingly scarified the gums, and administered an aperient—calomel and castor oil. The movements continued for two hours, then gradually subsided, and finally passed off. They did not again recur.

The scalp gradually became more full, and on the 20th, seventeen days after the operation, the iodide of potassium was again given.

June 9th, 1862.—The head appears nearly as large as before the operation; the child in much the same bodily condition. The operation was performed the second time, and about four ounces of liquid withdrawn. This time it was milky, and of the consistency of weak gum water; no untoward symptoms occurred. The head remained much in the same condition, and on July 25th measured, circularly, twenty-two inches, and laterally twenty-three inches. A change of air to the sea-side was now tried, and, whilst sea-bathing was being employed, cod-liver oil and preparations of iron were again given. The head did not enlarge, but, on the contrary, remained much in the same condition, and at the end of August the soft parts were still depressed; the child's general health was improving. During 1863 this continued, and it was noticed, further, that the scalp was becoming more and more firm.

June 8th, 1864.—The child is now three years old, strong,

and well nourished ; the head, in comparison with the body, does not appear so large ; it measures, circularly, twenty-three and a half inches, and laterally twenty-three inches. On the vault no soft parts can be felt, the whole surface being firm. There is no indication of any mental impairment ; on the contrary, the child is very intelligent ; the teeth are all present.

This case is interesting, as it has remained under observation during the *whole period of the disease and the cure*. It shows most forcibly that sometimes the most unpromising cases finally do well, and that this operation may be followed by a successful result.

It is difficult to say where the fluid was situated, or to determine its relation to the brain-tissue. We supposed it was situated in the sac of the arachnoid. This supposition is strengthened by the history of the case, the swelling first appearing circumscribed, and then becoming diffused, and finally being followed by enlargement of the whole head.

After the first operation, in all probability, inflammation occurred, evidenced by the sudden accession of symptoms of irritation and by the appearance of the fluid obtained in the second tapping. This morbid process probably prevented more fluid being exuded or secreted, or, by being of greater consistency, mechanically, by its pressure, caused that which was present to be absorbed.