CASE

HYDROCEPHALUS,

**SUCCESSFULLY TREATED BY THE REMOVAL OF THE
WATER BY OPERATION.**

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OF LIVERPOOL.

Read May 26, 1818.

ON the 11th of July last I was requested by Dr. Formby, my friend and colleague at the Liverpool General Dispensary, to see a case of advanced Hydrocephalus with him. The patient was an infant of seven weeks old, whose head was enlarged by the accumulated fluid to between two and three times its natural size. But little ossification seemed to have taken place since the birth of the child, shortly after which the mother noticed the preternatural and increasing size of the head. The enlargement had been progressive from that time, and the head had become so transparent, that when held between the eye and the light, it was not unaptly compared to a paper lantern.

The child, at the time I visited it with Dr. Formby, being free from any additional symptoms indicating a serious affection of the general health, with the exception of a slight derangement of the bowels and occasional convulsions, we thought this a favourable case for the experiment of gradually discharging the water from the head by puncture. The operation was accordingly performed the next day by means of a couching needle of the size and shape formerly in use. Three ounces and five drachms of limpid fluid were discharged, and the opening was closed with adhesive plaster, a roller being at the same time applied round the head. After the discharge of this small quantity of water, the head lost its tension and globular form, and became so flaccid as to allow the water to gravitate backwards while the child was laid upon its mother's knee, giving to the loose integuments the form of a pendulous bag. About an equal quantity of water dribbled from the orifice after the operation, and the child sunk so extremely low as to create the greatest alarm in the mind of the mother, and induce her to apply to the Dispensary for assistance at midnight. The child, however, revived without the aid of medicine, and the water again accumulating, the head became as tense as before in a very few days. On the 29th of July the operation was repeated. I was less cautious in the mode of the puncture and the quantity of fluid abstracted on this occasion: the operation was performed with the curved and

pointed bistouri of my pocket case, and five ounces of fluid were evacuated.

No unpleasant consequences followed, and the head having regained its former size, it was a third time punctured on the 20th of August. Eight ounces of the contained fluid were now discharged, and no constitutional disturbance succeeded to the operation.

The head was punctured for the last time on the 29th of August, and a small grooved director being introduced into the orifice, twelve ounces of the fluid were drawn in a continued stream.

The head on this occasion became so flaccid and shapeless, that the mother was shocked at its appearance, and fearful of the consequences of raising the child from her knee. No derangement of the health followed this fourth operation.

It was observed that between the first and second operation, the relaxed state of the integuments had allowed the process of ossification to advance in a perceptible degree. This was still more remarkable after each of the succeeding operations; and before the last, the sagittal suture, which had at the commencement of the treatment divided the frontal bone as low as the nose by a wide chasm, was entirely obliterated at this part, by the union of the two opposite portions of the bone.

A short time after the last operation, the child was perceived to discharge a considerable quantity of water by the bowels;—this at first took place with the natural motions, but afterwards the water, resembling in its sensible qualities that discharged from the head, was evacuated alone, and continued to be so for four or five days. The same low state as followed the first puncture of the head, took place on the second day of this discharge from the bowels, and it was particularly remarked, that a diminution of the size of the head had corresponded with the quantity of water thus evacuated. Ossification now advanced with greater rapidity, and the bones of the head are at present nearly as complete as is usual in a healthy child of similar age. Our little patient has besides improved in health, size, and vigour; its appetite and digestion are good; and what has afforded us particular interest, not a single convulsion has occurred since the first operation.

My friend Dr. Traill, who unites to very various scientific acquirements much skill in practical chemistry, examined the water discharged from the head at each operation, and found it at first to contain scarcely any trace of albumen; he considered it to possess more of the characters of simply diluted mucus. After the second and third operations, the presence of albumen was more sensible.

The medical treatment of the child was restricted to the preservation of the action of the bowels by small doses of hydrarg. cum creta.

Liverpool, Nov. 27, 1817.