

into her hand, she immediately threw it down and was pleased at the noise.

*Diagnosis.*—Compression of the brain from early consolidation of the bones of the skull. This conclusion was arrived at from the following interpretation of the symptoms :

1. Spasmodic condition of certain muscles and stiffness in the general movements of the body indicate, as in convulsions, an anæmic state of the nerve centers of motion.

2. During sleep, when the brain is naturally collapsed, giving room for an equal circulation to all the nerve centres, the muscular system was equally relaxed.

3. An emotion produced a semi-convulsive movement of the body, by absorbing all the circulation within the cranium to the part of the brain which was the seat of action ; or the consequent erection of this part of the brain within a confined space, acted by crushing the blood from other nerve centres, as observed in persons when some violent passion takes absolute possession of the mind, and even paralyzing the body in a stiff condition, as instanced in the statue-like paralysis of fear.

4. Sluggish circulation in the body, and especially in the spasmodically-paralyzed parts, accords with the physiological law, that the nerve centre and its peripheral distribution is regulated from the same vaso-motor centre, and is an indication of deficient circulation in the motor centres of these parts.

5. The want of development in such natural actions as chewing, etc.

6. Divergence of the eyes and a dilated state of the pupils, also a liability of convulsions produced from slight causes.

Thus far we have a picture of chronic compression of the brain, beside which we have two other conditions which are not unimportant factors in this case.

7. The profuse quantity and rapid growth of hair, indicating great vascularity of the scalp which received most of the blood thrown into the carotid arteries.

8. The absence of the fontanelles and the complete consolidation of the skull, at an early age, indicated the cause of this condition, viz : chronic compression of the brain. The skull was perfectly symmetrical but small, and the spasm of the right arm pointed out the greatest compression to exist on the left hemisphere.

Accepting the above as the theory of the condition, the parents consented to the proposal to remove a portion of the skull in order to give room to the brain, or to relieve the pressure which prevented circulation in the dormant organ. Accordingly, with the assistance of Dr. Trenholme, on the 24th of September, I removed a circular portion of the skull  $1\frac{1}{4}$  inches in diameter from the left parietal bone, just above and in front of the eminence. At 1 p.m., chloroform was administered, which took a remarkably quick effect. One straight incision was made, sufficient to admit the trephine. The scalp was thick and very vascular ; several arteries, very large for the situation, were divided and spouted freely. The bone was about  $\frac{3}{16}$  inch thick, dura mater thin and bluish in color, and bulged to such an extent that we feared that it might slough from pressure of the inner margin of the opening in the skull. The brain had a very strong pulsation. Owing to the effect of the chloroform, which very nearly asphyxiated the child, I was prevented from carrying out my intention of removing more bone at this time. The wound was brought together tightly on account of hemorrhage, and a large clot filled the space.

The immediate effect of the operation was, that the child became warm over its whole body, its eyes assumed a more parallel direction and were more steady in their movements, it began to stretch out and open its paralyzed and stiff arm and hand. The tongue receded into its mouth, and on the fourth day it was observed that it chewed and swallowed solid food for the first time in its life and did not slobber. Perception was slowly developed. It was observed on the 9th day, which was the first time she was tested, that an object fixed the eyes for a moment, and after repeated trials, when she was well enough to bear it, her attention could be drawn for some time ; but if the object was moved she lost it, and the eyes would oscillate slowly until her attention was again fixed upon it. After a few days perseverance in teaching she could follow an object with the eyes when it was moved very slowly, and this capability increased rapidly, so that at the end of a month or so she had so far improved that she knew and cried after her mother, would play with her mother's brooch, the buttons on her dress, and distinguished other persons, some of whom