promontory of the sacrum. No attempt was made to correct the deformity.* Both mother and child did well. The last time I saw it was when it was four months old. The indentation, though improved in appearance, was not obliterated. Some months after this, I heard that the infant was dead.

On reading the reports of the cases referred to, I desired to know what time had done for the improvement of the forehead, and accordingly called upon the mother, who informed me that her infant died of cholera infantum, at the age of eleven months; that it had been a bright and healthy child, and that the indentation had become hardly noticeable.

Months of disfigurement, however, are not to be preferred to its immediate removal, provided it can be effected with safety. The complete success of Dr. Tracy, of Andover, and of Dr. Sinclair, of this city, in restoring the depressed bone to its proper place, would justify cautious trials in similar instances. It is to be hoped that future cases in which this operation is attempted will be reported.

Selected Papers.

A CASE OF SPINA BIFIDA CURED.

From the Medical Clinic of Prof. WEBER in Halle, Reported in the Berl. Klin. Wochenschrift, by
Dr. CARL V. BRUNN, Clinical Assistant.

MEDICAL literature furnishes us with the history of but few cases of spina bifida resulting in cure, especially when the cavity of the tumor has been found to communicate with the spinal canal. Various operative procedures have been recommended for the removal of this deformity, but, however highly lauded at first, they have soon failed to give satisfaction and have fallen into oblivion. It cannot therefore fail to interest the profession generally, whenever, by any means, the cure of this condition is accomplished.

On the 30th of November, 1870, at the Medical Clinic of Prof. Weber, in Halle, there was presented a child 15 months old, suffering from the presence of a tumor on

the back, about the size of a duck's egg. The mother's report of the origin and progress of this growth was as follows:—

At birth, the child appeared well and normally developed, with the exception of a rather large head and a small tumor, hardly the size of a hazel-nut, situated on the back at the base of the neck. This tumor was tolerably firm, painless, covered with normal skin, and perfectly tolerant of gentle pressure. It inconvenienced the child so little that the parents were entirely unconcerned with regard to it, even when, on the third day, it filled up somewhat with fluid, thereby increasing in size. For the first six months of its life, the child was perfectly well nourished, and flourished finely at the breast. At this age it was weaned, and now a change followed. The nutrition of the body was interfered with, the growth of the tumor commenced; the child, hitherto plump and good-natured, grew emaciated and fretful; the process of teething was not set up; the intellect remained undeveloped, and the little sufferer was a pitiful object to behold. At the same time the tumor, which had hitherto been stationary, began to grow, and increased in size until reaching its present formidable proportions. The skin over it became exceedingly tense and very much thinned; that over the lower two-thirds assumed a purple hue, and the fear naturally suggested itself that some fall, or accidental blow or pressure might, at any time, rupture the tumor and destroy the life of the child.

Under these circumstances, the mother was very anxious to have an operation undertaken, and persisted in her demand, even after all the risk involved had been duly set before her. Thus urged, Prof. Weber at length reluctantly consented to operate.

The condition of the child on her admission to the Clinic was as follows: She was small for her age (15 months), badly nourished and rachitic; head large, fontanelle extensively open, face flabby and old looking, neck long and thin, and the lymphatic glands on both sides swollen. The trunk, owing to existing cyphosis, was bent forward and twisted on its axis; the belly protruded and was tense; the epiphyses of the long bones were enlarged.

The tumor was attached posteriorly opposite the site of the 1st to the 3d dorsal vertebrae. It was of the size of a duck's egg, tense, elastic, of a bluish red color (only the upper fourth being covered with natural skin), and was attached to the spinal column by a pedicle about an inch and a half by half an inch in diameter. It felt

* Chailly says:—"The depression of the frontal or parietal bone sometimes takes place in new-born infants, in consequence of a difficult and protracted labor, which has required the use of the forceps; or in consequence of the compression of the cranium against a too projecting sacro-vertebral prominence. * * * There is no particular remedy for these different lesions, which nature most usually cures herself."

like a cyst with extremely thin walls and fluid contents. It was not possible to determine with certainty whether the cavity or walls of the sac contained any other elements or tissues, as, for example, nerve substance; but the low degree of sensibility, as well as the absence of any general nervous disturbances on handling or compressing the tumor, argued against such a supposition.

The question of the greatest importance, as determining the character of the growth and the probable results of an operation, was whether the cyst communicated either with the cavity of the meninges or of the spinal canal. The evidence on this point was a little conflicting, but, on the whole, went to prove that such communication did exist. Firm compression of the tumor produced no perceptible movement of the fontanelle, nor any evidence of irritation of the spinal cord or brain. On the other hand it was certainly possible, by means of gentle pressure, to effect a diminution in the size and tenseness of the tumor, which could only have been accomplished by forcing out a portion of its fluid contents into the cavity of the meninges. This could be done but slowly, showing that the channel of communication must be of very small calibre. Nevertheless, we unquestionably had to do with a case of spina bifida, a tumor resulting from arrested development and a consequent partial leaving open of the spinal canal. This, with the badly nourished and rachitic condition of the patient, gave but little to hope for as the result of operative interference.

It having been decided, however, to make the attempt, the next question was, what method of operation should be undertaken. The literature of the subject offered but little that was encouraging, and no sufficient inducement to follow exactly any one of the operations hitherto in vogue. Prof. Weber, therefore, determined on one which should combine the elements of some of those previously attempted, viz., gradually increased compression of the pedicle, accompanied by successive evacuations of the contents of the sac. By this means he hoped to bring about so gradual a necrosis of the tumor that, by the time it should fall off, the channel of communication through the pedicle would be obliterated.

The operation took place on the 2d of December, 1870. While an assistant drew the tumor as far from its bed as possible, thus elongating and narrowing the pedicle, a clamp was placed around the latter, as near as possible to the spine, and gently

closed, so that the pedicle was just moderately compressed. (For this purpose, one of Hutchinson's ovarian clamps was used.) Then the canula of a Pravaz syringe was introduced, being passed obliquely through the skin, and about half the contents of the sac were withdrawn.*

In proportion as the tumor and the pedicle diminished in size, the clamp was screwed the tighter, so that after the withdrawal of a part of its contents, the tension of the cyst was kept about the same as before. Owing to the oblique introduction of the canula, not a drop of fluid followed its withdrawal, neither, of course, could any air enter.

The child bore this operation uncommonly well. No febrile reaction and no nervous disturbances followed. Therefore we did not hesitate on the next day, the tumor having become a little larger and harder, to withdraw another portion of fluid and still further tighten the clamp. This proceeding was repeated daily; the tumor collapsed, became cold, ulcerated, and, on the seventh day, fell off, carrying with it pedicle and clamp. We now had before us a granulating surface of about the size of a silver dollar, but—to our disappointment and dismay—there appeared in the centre of this space a depression from which, on the child's struggling or crying, flowed the same clear fluid which we had found in the cyst! Our plan for obliterating this channel of communication with the spinal canal had failed. The only thing that prevented the passage of air inwards through this channel was its small calibre. But the prospect for the patient was most gloomy.

We now treated the opening with cauterizations, by the ordinary means as well as by the actual cautery. The only result was a narrowing, not a closure of the opening, and a general tendency of the wound to cicatrization. Notwithstanding the continued escape of the *liquor cerebro-spinalis*, though now in less amount than at first, the general condition of the child improved, it became better nourished, no nervous symptoms appeared, and the wound began to heal kindly.

In this condition the little one was sent home on the 16th of December, two weeks after the operation and seven days after the detachment of the tumor. One month later, the mother reported as follows: "At first, the child was very weary, slept much and

* The fluid withdrawn was clear and watery in appearance, and proved to be rich in chlorides, but devoid of albumen. Under the microscope, it presented but few cells, and those were chiefly epithelial.

quietly, cared for neither food nor drink; this lasted about two weeks; then she grew livelier, began to eat, raised herself up in bed, and now often sits up for an hour at play. To-day the spot is entirely closed. Yesterday it suppurated a little, but to-day a thin skin has grown over it. There has been no discharge from the opening in the centre for the past two weeks."

Thus we see that the canal was obliterated three weeks after the detachment of the tumor, and that in two weeks more the entire surface of the wound was covered with skin.

On the 11th of March, three months and a half after the operation, the child was again presented at this clinic. A firm, hard linear cicatrix is all that now marks the former site of the tumor. And what a change in the general appearance of the little patient! The face no longer looks old and wan, but shows the round, red cheeks and the bright eyes of childhood; teeth begin to show themselves; the baby tongue begins to prattle; the abdomen is no longer distended; the extremities are growing rounded, and only the curvature of the spinal column remains of all the sad deformities which but a few months since made this child one of the most pitiable objects on earth.—*Kansas City Med. Journal.*

Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.
F. B. GREENOUGH, M.D., SECRETARY.

OCT. 9th.—*Strangulated Hernia reduced by a Sudden Shock.*—Dr. FIFIELD reported the case.

The hernia had been down several days, during which time the patient had had no dejection; there was considerable tenderness, and vomiting had set in. Dr. Fifield was sent for to operate, but on arriving he found that the hernia had gone back, and that the patient had had an operation of the bowels. It seems that while the patient was lying on his back in bed, a kitten that was playing in the room crawled up on to the bed-post and jumped from there on to him, which gave him such a sudden shock that the hernia went back.

OCT. 9th.—*Foreign Bodies in Trachea.*—Dr. HODGES reported the cases.

Three weeks ago, a boy entered the Mass. General Hospital. He had been playing with a cherry-stone through which he had

stuck a pin, for the purpose of blowing it through a bean-blower. This stone, with the pin in it, having fallen on the floor, he put the end of the bean-blower over it in order to suck it up, and on applying his mouth at the other end, the stone was sucked up through the bean-blower and went down his windpipe. He was seized with sudden and repeated dyspnoea and cough, and could feel a sense of pricking in his trachea, which was followed by expectoration slightly tinged with blood. Tracheotomy was performed without any result, as was also the case in a second attempt. The patient went home with a tube in the tracheal opening, in the hope that at some future time the foreign body might be dislodged and coughed up, or removed.

The other case was a woman, who, while putting on her shawl, swallowed a shawl-pin with a large glass head. The same train of symptoms came on, viz., immediate dyspnoea, cough, and a sensation of the pin's moving in the trachea. Tracheotomy was done, and the pin seized with the forceps, but it could not be removed, as, having gone down head first, the point would catch in the mucous membrane whenever an attempt was made to withdraw it. Finally, after much manoeuvring, it was lifted up about half way; while being held there the point was seen sticking through the skin about three-fourths of an inch below the tracheal opening. It was seized and pulled farther through, with the idea of turning the head upwards, when it broke; the point was then pulled through, and the head was seized with the forceps and extracted.

Dr. CHEEVER spoke of a case where an ordinary pin had been swallowed and could not be found. The tracheotomy tube was left in with the hope that it might be coughed up, but it never was. The pin was swallowed about three years ago, and quite recently the patient died with symptoms of pneumonia and abscess.

OCT. 23d.—*A Case of Acute Atrophy of the Liver.*—Dr. JOHN ROMANS reported the case.

In the summer of 1868, I published a case of acute atrophy of the liver in the *American Journal of the Medical Sciences*, and I took the opportunity to add other published cases, not before collaborated, and to mention the characteristics of the disease as laid down by Frerichs and as appearing in these cases.

The only two autopsies of the disease that I have seen are the one mentioned above and one last May. Both of these