Ricketts (M.)

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CRANIECTOMIES—WITH REPORT OF FOUR CASES.[1]

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While the present status of brain surgery is very unsatisfactory, yet the results have been sufficiently encouraging to justify the continuance of operative procedures.

There is yet much speculation as to the future treatment of those cases in which epileptic conditions are manifested. Until the preponderance of evidence is against surgical interference, one's conscience should recoil from denying these unfortunate creatures the slightest possibility of immunity from epileptic seizures of any degree.

Epilepsy is oftener the result of trauma and negligence in the care of acute meningitis of any form (especially in childhood) than heredity. It will, for this reason, require much more time to formulate conclusions that will be at all valuable. Nothing but actual experience, accurately recorded and analyzed, will ever settle this question. This is the motive which prompts me to report the following cases in addition to those which I have already published.

CASE I.

Miss S., aged eight, white, excellent physical condition. Had scarlet fever at age of four. Was of ordinary intelligence up to this time, after which she was unable to talk, but all senses remained normal. Her environments were unfavorable to education, which was principally in the hands of a sister but a few years her senior.

I first saw her in July, 1896. The right frontal and parietal bones were not so highly developed as those of the opposite side. Her mental condition was poor, and her reasoning capacity especially so. She had never been taught to eat with knife, fork or spoon, and placed all food in the mouth with her fingers. She gave no warning of her desire to urinate and defecate. She was somewhat irritable, and would cry aloud on the slightest provocation. Her expression was that of a child who seemed to understand a great deal of what was said to her. An intra-cranial exploration was advised without promise of beneficial results; this was consented to.

The scalp, being shaven and cleansed, was constricted with a rubber band encircling the head just above the ears and frontal prominences. An incision extending from one ear to the other was made through the integument, including the periosteum. This cutaneo-periosteal flap was laid back so as to enable an area in each parietal and frontal bone to be removed, this area being about two by three inches on each side. The pachionian bodies were increased in size and number, especially along the longitudinal sinus. The dura was adherent throughout on either side, requiring a detachment by use of the brain spatula. The dura was then incised, bringing the arachnoid space to view. This space was obliterated here and there, which

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Presented by the Author

was evidently the result of preëxisting meningitis. The periosteum and integument were replaced and sutured with silkworm-gut. Primary union was complete, and the patient up and around on the fourth day, and discharged on the twelfth day.

Her condition, six months after operation, indicates improvement.

CASE II.

McG., white, aged twenty, stout and robust. Entered hospital September 21, 1896, and was operated upon the following day.

Had an attack of walking typhoid fever in October, 1895, accompanied by dizziness and pain in the head. This condition increased in severity until January, 1896, when it somewhat subsided and remained mild until the following April, when the pain in the head over the hemispheres was greatly increased. He had not regained his former flesh, but his appetite continued good. He lost interest in things in general, and especially in his books, to which he had formerly devoted a great amount of time. The attending physician had administered the usual remedies for pain in the head without any apparent result.

Upon consultation, I was led to believe that the pain was the result of adhesions of the cerebral meninges, either to each other or to the cranium. This prompted me to suggest an exploration of the cranial cavity, which was done with the following results.

An incision was made from a point corresponding to the tempero-fronto-parietal junction on either side and extending almost to the occipital prominences. The cutaneo-periosteal flap was brought forward and an area removed from each parietal bone two and one-fourth by three and one-fourth inches in size. The operation had no unusual features except that the right parietal bone was ebonized and about one-third thicker than the left, and therefore exceedingly difficult to drill or chisel, and it was not until two drills and two chisels were broken that the complete removal was effected. The dura was adherent to the entire surface of the parietal, frontal and temporal bones on each side.

Upon incising the dura the arachnoid cavity was found to be extensively obliterated, especially upon the right side. The pachionian bodies seemed to be larger, more numerous, and extend further from the sinus than usual. A small sub-dural vein was divided at this stage of the operation, and was the occasion of considerable annoyance; it could not be caught by the forceps, and it became necessary to place a rope of cat-gut beneath the skull that the hemorrhage might be stopped by pressure.

The incision was brought together with cat-gut, and the cutaneo-periosteal flap replaced and drainage provided for.

Primary union was secured, and the patient left the hospital on the twenty-second day following the operation.

Condition improved for several months following operation, and the patient and family seem satisfied with the result one year after.

CASE III.

Referred by Dr. Vincent, of Sunman, Ind. Male, white, aged fifty-three; had a tumor about the size of a hen's egg a little to the right of the median line just below the occipital prominences. There was no pain, but strong pulsation could be felt all over the surface.

The patient had fallen backward out of a wagon two years previously, striking the back of his head upon the frozen ground, but there was no serious result of this fall. The tumor did not begin to develop until a year later.

Assisted by Drs. Vincent and Edwin Ricketts, an incision was made under the influince of chloroform. The character of the contents of this tumor was speculative, the diagnosis favoring either sarcoma or aneurism. The hemorrhage following the incision was extensive, and did not seem to be from any one point, but from numerous vessels. The contents of the tumor, which were immediately scraped out, greatly resembled brain tissue. There was absent an area of bone about the size of a silver dollar, involving the right occipital and parietal bones. The

ragged edges were removed with forceps, as was also all the diseased bone. It was necessary to pack the cavity with hot towels to prevent hemorrhage, and this required a considerable length of time. The operation having been performed in the country made it impracticable to save any of the contents of the tumor for examination.

Although the patient lost a considerable amount of blood, he was able to sit up on the second day, and was out walking on the street a few days later.

The gauze packing, which was introduced after the suturing of the wound, was removed on the second day.

The clinical appearance and history of the case, and the character and contents of the tumor led us to believe that it was sarcoma. Time has verified these suspicions, as the growth is now somewhat larger than it was at time of operation, one year ago.