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Case of Abnormal Development of the Scalp. By T. W. McDowall, M.D., County Asylum, Morpeth. (With Plate.)

The accompanying illustration represents what is believed to be a hitherto undescribed abnormality of the scalp. The condition was discovered accidentally. I observed an attendant cutting a lad's hair, and remarked that he was not doing it very well, as there appeared to be numerous scissor-marks. It was explained that the marks were due to the arrangement of the hair. This led to careful examination of the whole scalp. Its condition is very well represented in the illustration. On each side there are five deep furrows, passing from behind forwards. Those nearest the middle line are straight; the others slightly curved, and they are the more curved the further they are removed from the middle line, and at the same time they diminish in length. When the hair is of ordinary length the condition of the scalp would not be suspected; it is only when the hair is very short that the furrows become evident. For the purpose of preparing the accompanying illustration the hair was cut as short as possible, but the hair growing in the furrows was necessarily left somewhat longer than elsewhere, with the result of indicating with great clearness the course and arrangement of the depressions. The furrowing of the forehead is not abnormal, but is produced by the patient whenever he is annoved, as he was when the photograph was taken.

The patient is an epileptic idiot, aged 22 years, and has been resident in the asylum nine years. He exhibits only slight traces of intelligence. He is above the average stature, and in good bodily health. The whole right side of the body is wasted, and the limbs contracted. He is stated to be the eldest of six children, and to have been epileptic since he was one year old. He is distinctly but not markedly microcephalic. Since this congenital deformity of the scalp was discovered I have examined the heads of all the male patients, with the result of discovering another example, but not so marked.

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To illustrate D<sup>r</sup> Mc Dowall's Case.

This patient is also a microcephalic idiot. I have made wide inquiry in order to discover whether such a condition had ever been described before, and also to obtain some information as to its nature. All my research proved fruitless, except in one direction. Dr. Carlyle Johnstone informed me some six months ago that he had discovered two such cases, and he has been so good as to favour me with a photograph of one.

Professor Unna, of Hamburg, to whom I forwarded a photograph and description of the case, favoured me with a reply. He was of opinion that the condition of the scalp had not been previously described. He suggested the electrical stimulation along the sides of the scalp to see whether muscular contraction could produce folding of the skin in a similar direction. In his letter he continues :--- "A series of stimulations along a corresponding line, producing a series of contractions and folding of the skin, would thus indicate a high development of the skin muscles, the contraction of which may account for the rest of the furrowing. As regards the comparative anatomy, I have examined several apes in the Zoological Gardens here, and found that they possess a very muscular scalp, but no amount of irritation succeeded in making them fold the skin along the lines of the folds in the scalp of your It would perhaps be advisable to consult an anatomist case. or zoologist upon this question." Professor Unna's suggestion to stimulate the scalp by means of electricity was tried, but the result was absolutely negative.

A friend was so good as to forward a photograph to Professor Kaposi, of Vienna, and I was favoured with the following communication :—"I have delayed answering your letter because I wished first to consult the opinion of the Professor of Pathological Anatomy of the city, Professor Kundrat, who has been absent for some time. I have now, however, seen him, and he says that he considers the folds to be partly hypertrophic. He has observed hypertrophies in microcephalics and in other deformities of various parts of the body.

"In this case one might conceive that the brain had not advanced in growth, but the skin was sufficient for a normal skull, and had developed independently in accordance with its own capacity for growth. But because the contents to be surrounded remained too small, the normally large skin was forced to arrange itself in folds over the small skull, and in parts became atypic, *i.e.*, hypertrophied during development. I fancy, too, that the folds chiefly correspond with the cleavage of the skin (Langer's lines). "This, after my conversation with Professor Kundrat, coincides with my ideas on the subject. I do not know what else to say about it."

Were Professor Kaposi's suggestion correct it is probable that such a condition of the scalp would be seen much more frequently, seeing how common microcephaly is. If one may venture to offer a suggestion, it appears to me possible that we have here a retrogression to a lower type. I have not had opportunities of specially examining the heads of the animals in the Zoological Gardens, but I have seen a somewhat similar condition in dogs, and my impression is that it is very marked in lions, tigers, and animals of that class. When a dog pricks his ears the furrowing can be seen very distinctly, especially when the hair is thin.

It is probable that the exact nature of the condition will not be ascertained until a case has been minutely examined after death.

Since writing the above I accidentally came across the following passage, which clearly shows that the condition was observed many years ago, though not by a medical expert:—

<sup>6</sup> But the idiot, Bénési, inspired me with no repugnance, because he was always good and always clean, with his grey coat and his coarse shirt, whose collar cut his enormous ears, adorned with rings. I would scarcely even ridicule his stammering when it took him two minutes, in speaking to my uncle, to say, 'Monsieur Biébiéoniface.' He had a strange appearance, however, with his large nose, wide mouth, and head the size of one's fist, close-cropped, and streaked with furrows like a potato-field.

"What solicitude, like that of a faithful dog, he manifested for his blind sister, whose guide and careful guard he always was!

"Therefore it was that we protected Bénési, and defended him against the street boys, who threw stones at him and made fun of his insane but harmless fits of anger."

("The Life of an Artist," by Jules Breton. Translated by Mary J. Serraon. Sampson Low, Marston & Co. 1891.)