

perfectly formed gland tubules composed of a single row of columnar epithelial cells and the nuclei well stained, the basement membrane intact, the surrounding stroma of lymphadenoid tissue and the enveloping muscle—typical adenomyoma. Figs. 5 and 6 are reproduced from microphotographs from different parts of the same section. Fig. 6 seems to show the transition from adenomyoma to adenocarcinoma through the intermediary stage of malignant adenoma, the gland canals at that part being lined with a single row of cylindrical epithelium. We have searched several hospital and private collections of uterine tumours without coming across this condition.

To sum up, we would suggest the following as the stages of these tumour formations: first, an ingrowth of the structures of the endometrium into the muscular wall, as is seen in hypertrophic endometritis—the stage of “glandular inclusion”; second, a hyperplasia of the inclusions and a progressive infiltration stimulating a hyperplasia of the muscle—the stage of “adenomyoma benignum”; third, a loss of relations between glandular and muscular elements, the growth of the former outstripping that of the latter, inversion and eversion of the epithelium with a consequent displacement of the interglandular ströma and an encroachment on the muscle, the irritation of the growth causing the round-cell infiltration—the stage of “malignant adenoma”; and fourth, the stage of adenocarcinoma, the loss of relations between one epithelial cell and another, the riotous proliferation and heaping up of immature epithelial cells breaking through the restraining basement membrane, invading and destroying the adjacent muscle.

We have received much help from various friends in the way of specimens of uterine tumours and microscopic slides. We beg to thank Dr. Harold R. D. Spitta of St. George's Hospital for the excellent microphotographs which he has taken for us.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

### SIR JAMSETJEE JEEJHEBHOY HOSPITAL, BOMBAY.

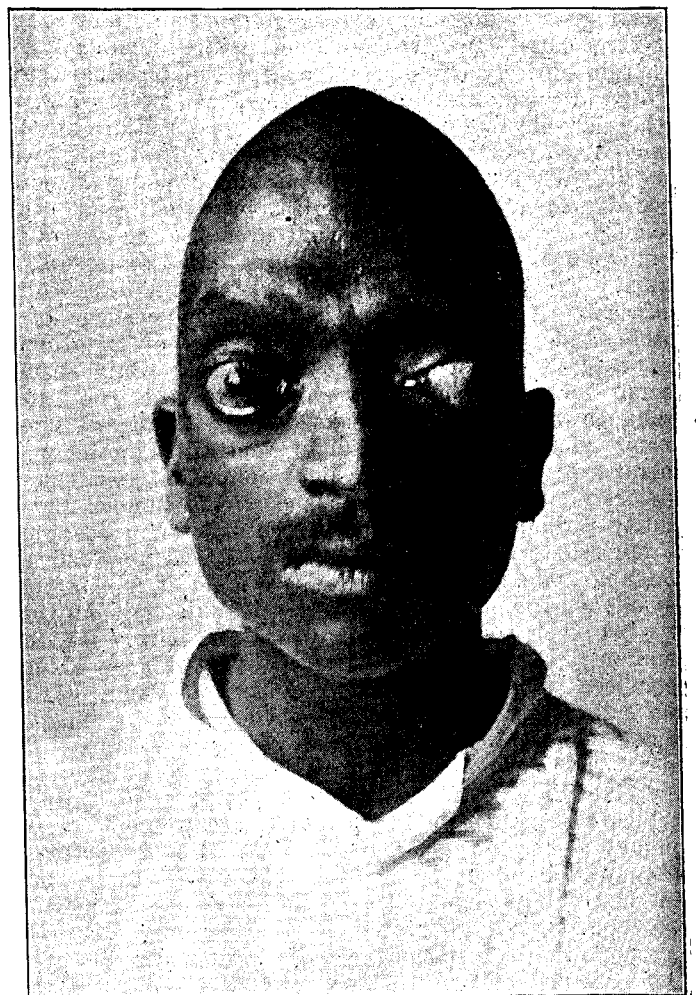
A CASE OF OCULAR DEFECTS ASSOCIATED WITH CONGENITAL DEFORMITY OF THE CRANIUM (OXYCEPHALY).

(Under the care of Captain E. F. GORDON TUCKER, I.M.S.)

THE patient was admitted into the wards of Captain Tucker in the Sir Jamsetjee Jeejhebhoy Hospital early in September, 1903, for an attack of malarial fever which rapidly responded to treatment. The curious condition of the eyes was at once observed and examination of the cranium showed that the occipital region was very deficient and that the posterior part of the skull was almost on the same plane as the back of the neck. After his head had been shaved the “steeple-shaped” character of the cranial vault was evident. He was a Mahratta and stated that his age was about 20 years and that his eyes had always been prominent. His father was alive and in good health and had no peculiarity of the eyes or the face. His mother died about five years previously, apparently from phthisis; there were three sisters who died young and there was one brother living who had not ocular defect or peculiarity. The patient's work was to look after cattle. He answered questions intelligently; he gave no history of headaches and had always had good health. Vision for distant objects was good. He was of normal height, build, and development. The cranium showed a projection in the form of a ridge from the centre of the vertical portion of the frontal bone to the central point of the vault, which was situated one and a half inches in front of a line drawn perpendicularly upwards from the external auditory meatus. The marked bulging in the temporal regions present in the case of congenital proptosis

associated with a curious formation of the cranium in a boy, aged seven years, who showed evidence of some mental deficiency, described by Mr. H. Work Dodd and Mr. W. H. McMullen in THE LANCET of June 13th, 1903, p. 1665, was not evident in this case. The shape of the face was natural. The nose was well formed. The palate was very high and arched and met at the uppermost part in a deep sulcus. The teeth were very good and not at all crowded together. The neck was of normal shape and there was no enlargement of the thyroid gland. Coördination of muscular movement was quite natural. The measurements of the head and face were as follows: horizontal circumference, 49½ centimetres; naso-occipital arch, 34 centimetres; binauricular arch, 34 centimetres; height of the orbits, 4½ centimetres; breadth of the orbits, 5 centimetres; transverse diameter (measured with callipers), 12·2 centimetres; antero-posterior diameter, 16·2 centimetres; suboccipito-frontal, 16·2 centimetres; distance between the two external angular processes, 11·4 centimetres; and height of the frontal bone, 11·8 centimetres. The cephalic index was therefore 75·3. Certain ridges on the cranium were well marked; the superior temporal line stood out along the whole side of the skull; the superior curved line of the occipital bone could be felt and the external occipital protuberance was of the size and shape of a marble. There were no definite parietal eminences. The internal condyle of each humerus was very prominent and this enlargement was symmetrical; the internal condyle of each femur was also large and there was the slightest possible amount of genu valgum. The proptosis could be well seen in the photographs (see illustrations). Quite two-thirds of the globe were in

FIG. 1.

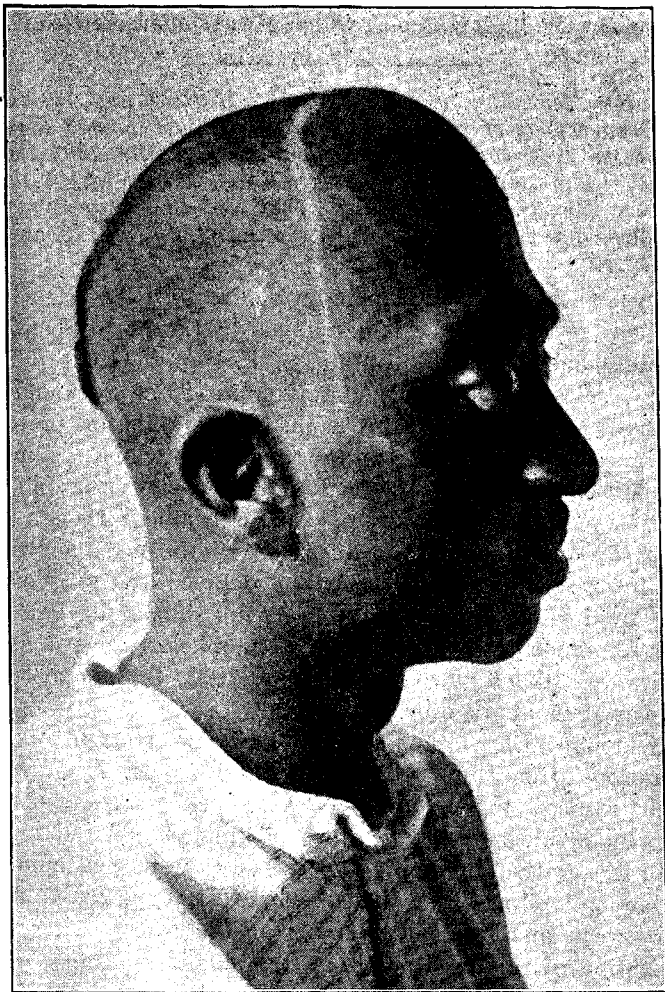


Aspect of patient, front view.

front of the orbital margin; a little pressure on each lid caused still more proptosis and pain; there was more proptosis in the right eye than the left and it could be moved laterally by the fingers but this was painful. Vision was good; there was no nystagmus. Hearing was good. There was external strabismus on both sides but the left eye was the most affected. The movement of the right eye, when acting alone, was impaired in the inward direction and slightly so in the upward direction. Similarly there was impaired movement with the left eye acting alone but the movements

of the left eye inwards were slightly more impaired than on the other side. When both eyes acted together the left eye did not follow an object moved towards the right and when the object was to the left the right eye did not move beyond the median line. Bilateral movement of the eyes downwards was normal but on looking upwards movement of the left

FIG. 2.



Aspect of patient, side view. The white line marks out the coronal suture.

eye was deficient and it went outwards. Major Dyson, I.M.S., kindly examined the eyes and found the discs to be normal but the veins to be somewhat tortuous; the patient was hypermetropic (2.5).

*Remarks by Captain TUCKER.*—Mr. Dodd and Mr. McMullen in their description of an interesting case referred to above state that “cases of cranial deformity associated with ocular defects form an interesting group. Such cases are rare but the ocular defects observed in them are so constant that it appears highly probable that these defects are dependent on, or at any rate are closely related to, the deformity of the skull. The variety of cranial deformity most commonly found in these cases is oxycephaly.” The case which is described above is an interesting example of this type of cranium and the proptosis and external strabismus give the patient a curious and noticeable physiognomy. But it differs from the case described by Mr. Dodd and Mr. McMullen in showing no appreciable mental defects and in slightly less cranial deformity. The cause of the early obliteration of the lambdoid suture which produced the exaggerated growth in the vertical direction is quite obscure and rickets is discarded by the authorities in the consideration of the etiology, but in this case the existence of the exostoses in the position of the external occipital protuberance and the humeral condyles and the slight genu valgum are points of interest.

**POPLAR AND STEPNEY SICK ASYLUM DISTRICT.**—The report of the managers of this district for the year which ended on Lady-day, 1904, shows that in the various institutions of which they have control there were 921 patients, as compared with 896 last year. The analysis of diseases shows that bronchitis, heart troubles, rheumatism, and ulcers are greatly in excess of other affections. There was one case of Hodgkin's disease in the Bromley Asylum.

## Medical Societies.

**BRADFORD MEDICO-CHIRURGICAL SOCIETY.**—A meeting of this society was held on June 21st, Dr. H. Angus, the President, being in the chair.—Dr. T. M. Legge, H.M. Medical Inspector of Factories, read a paper on Scavo's Serum Treatment of Anthrax in Man. Dr. Legge stated that his attention was first called to the work of Dr. Scavo in a letter he received in January last from Mr. A. Webb, horsehair manufacturer, of Worcester, who had heard of the efficacy of the serum in industrial cases of anthrax which had occurred among workers in horsehair factories in Milan. Dr. Legge had since received, through the kindness of Dr. Scavo, professor of hygiene in the University of Sienna, some 60 tubes of the serum, but before venturing to bring the matter before the society and asking the members to use the serum he had endeavoured to sift the evidence on which treatment by its means was based. Evidence as to the possibility that passive immunity might be conferred on man had been obtained as the result of Sobernheim's analogous experiments in the case of sheep.<sup>1</sup> Sobernheim found that by adopting the method (originally acted on by Dr. Scavo) of combined active and passive immunising treatment (simultaneous inoculation of serum and virus) he was able to produce a high degree of active immunity in sheep and that the serum of such animals contained specific protective bodies against anthrax. Supported by the Chamber of Agriculture of Saxony he had tested and proved the success of the method on 2700 cattle in anthrax infected districts. As soon as the inoculations were commenced further outbreaks of the disease ceased to arise. Already in 1895 Dr. Scavo had been able to show (1) that sheep brought to a high degree of active immunity could furnish a serum active against anthrax, and (2) that this serum showed prophylactic and curative powers against anthrax in rabbits. In order to obtain a more powerful serum he instituted comparison of the efficacy of the serum obtained from the sheep, the goat, the horse, the ass, and the ox. It was from the ass that he obtained the most powerful serum and in a recent communication to him (Dr. Legge) Dr. Scavo still regarded the ass as the most suitable animal from which to obtain anti-anthrax serum. In view of the experimental results showing the curative power of the serum and its innocuousness when injected in large doses into animals Dr. Scavo turned his attention to the treatment of external anthrax in man and the first case was treated by means of the serum in June, 1897. In a paper<sup>2</sup> dated 1903 Dr. Scavo gave details as to age, occupation, situation of pustule, medical practitioner treating, verification and result of 158 out of 164 cases, all which had been treated with the serum up to the time of reporting. The fatality in these 164 cases was 6.09 per cent. as compared with 24 per cent. for the figures published for the whole of Italy and 26 per cent. for 211 cases of industrial anthrax reported to the chief inspector of factories in the years 1899–1903. The figures were very far, he thought, from giving an accurate idea of the therapeutic value of the serum. In several instances the treatment was not tried until all hope from every other form had been given up. Even in some of the fatal cases extraordinary improvement for a time occurred. The conclusions which Dr. Scavo drew from his work in consideration of the results hitherto obtained were that: (1) the serum was innocuous even in large doses; (2) it could be well borne even when introduced into the veins; (3) no case taken in an early stage and of moderate severity would be fatal if treated with the serum; (4) by its means some cases might be saved when the condition was most critical (he narrated one case in which a woman recovered after bacilli were found both in the blood and urine and another in which they were present in the urine); (5) when injected into the veins it quickly arrested the extension of the cedematous process so as to reduce notably the danger of suffocation which was present in many cases when the pustule was situated on the face or the neck; (6) if used early enough it reduced to a minimum destruction of the tissues when the pustule was localised and thus diminished risk of deformity; and (7) persons attacked appeared to become convalescent almost at once. The dose of serum recommended

<sup>1</sup> Zeitschrift für Hygiene, vols. xxv. and xxxi., and Berliner Klinische Wochenschrift, No. 22, 1902.

<sup>2</sup> Sullo Stato Presente della Seroterapia (Anticarbunclosa).