TENDENCY TO BENDING OF THE BONES IN CRETINS UNDER THYROID TREATMENT.

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ONE of the most marked among the many other signs of development produced in cretins during the administration of thyroid preparations is the rapid increase of growth in stature which takes place, an effect which is all the more striking when we remember that in these cases growth is almost at a standstill previous to treatment.

The boy, D. B., notes of whose case I published in the BRITISH MEDICAL JOURNAL for June 2nd, 1894, grew $4\frac{1}{2}$ inches in ten months under thyroid treatment, and his brother grew four inches in less than a year under similar treatment, as recorded by Dr. T. C. Railton in the JOURNAL of the same date.¹

As a point in the practical treatment of these cases, I have found that during thyroid treatment this rapid growth of the skeleton leads to a softened condition of the bones, resulting in a yielding and bending of those which have to bear weight; and as cretins under treatment become much more active and inclined to run about, this tendency to bending has to be guarded against.

A. W. at age of $15\frac{1}{2}$ years (before treatment) Height 3 ft. 6 in.; weight 4 st. 2 lbs.

The girl, A. W. (aged $17\frac{1}{2}$ years), of whom photographs are given, shows this increased bending of the legs very well. She has now been continuously under thyroid treatment for 2½ years, taking one 5 gr. tabloid (Burroughs and Wellcome) daily with her dinner, and during that period she has grown $7\frac{1}{2}$ inches (from 3 feet 6 inches to 4 feet $1\frac{1}{2}$ inch). During the period of two years previous to treatment, she had only grown 1 inch² (from 3 feet 5 inches to 3 feet 6 inches). For the last few months, she has been kept as far as possible at

rest, so as to prevent to some degree this bending of the legs.

The second photograph shows that the bending takes place most markedly in the tibia and fibula, the increased size of the ends of these bones at the ankle and knee being very noticeable. Several of the photographs of cretins before and after thyroid treatment exhibited by Dr. W. R. Parker, of Kendal, and Dr. John Thomson, of Edinburgh, at the recent British Medical Association meeting at Carlisle,³ showed this increased bending of the legs very clearly, and the condition was remarked upon and discussed, Mr. Victor Horsley showing in this connection slides to illustrate rickets produced in rabbits by Hoffmester, and in sheep and goats by von Eiselsburg, by removal of the thyroid gland.

While in rickets, however produced, there is perverted and delayed ossification resulting in softening and bending of the bones, under thyroid treatment in cretinism there is rapid resumption of growth in the skeleton, leading to softening, which is most marked in the long bones and at the epiphyses.

Cretins under thyroid treatment should therefore be watched for any commencing bending of the bones of the legs; and if such appears, the child should for a time be hindered from walking, or the legs supported by light splints. As an additional means of assisting the rapid bone and other

A. W., aged $17\frac{1}{2}$ (after 2½ years' thyroid treatment). Height 4 ft. $1\frac{1}{2}$ in.; weight 4 st. 10½ lbs. Showing increased bowing of legs, and enlargement of knees and ankles.

growth, the diet should be generous, and the child should get plenty of sunlight and open air. The administration of cod-liver oil and Parrish's food would probably prove beneficial at the same time.

³ Discussion on Sporadic Cretinism in this Country and its Treatment, Section of Diseases of Children (see pages 615 et seq.).

THE death is announced of Surgeon Charles Stewart Davies Fessenden, Senior Surgeon of the U.S. Marine Hospital Service, in which he had served with distinction for thirty-five years.

THE annual meeting of the Medical Society of French-Speaking Switzerland will take place at Geneva on September 24th.

¹ Case of Sporadic Cretinism treated with Thyroid Gland, by T. Telford-Smith, M.A., M.D., BRITISH MEDICAL JOURNAL, June 2nd, 1894, and Sporadic Cretinism treated by Administration of the Thyroid Gland, by T. C. Railton, M.D. Lond., *ibid.*

² Cases of Sporadic Cretinism treated by Thyroid Extract; by T. Telford-Smith, M.A., M.D., *Journal of Mental Science*, April, 1895.