Endocrinology.


The author reviews the earlier conceptions as to the growth and pathology of the thymus. Her investigations were made on a series of 147 children, ages from two weeks to 14 years.

She finds that Paltauf's original picture of status thymicolymphaticus corresponds with the normal development of the thymus and lymphoid tissue in well-nourished children. Her investigations support Hammar's conclusions, that the thymus normally increases in weight up to puberty and then undergoes an age involution. She has also shown that the thymus weight fluctuates with the body weight, diminishing in acute infections, and being greater in well nourished than in poorly nourished children. There is a definite parallelism between the thymus growth curve and that of the lymphoid tissue generally. Confusion has arisen from failure to recognise that accidental involution of the gland may occur in infections.

In discussing morbus thymica she states that in none of her cases was death caused by pressure of the thymus on the trachea. She finds that a normal gland may produce symptoms by pressure on adjacent structures, especially the recurrent laryngeal nerve. That these symptoms do not appear until the fourth week of life is explained by the fact that the thymus joins in the normal loss of body weight seen in the first ten days of life; that they do not appear after the first year of life by the fact that the chest is growing more rapidly than the gland which, therefore, becomes mechanically insignificant. P. W.


Disease of the thyroid gland is known to cause: (a) Myxedema; (b) its congenital form cretinism, associated with hypothyroidism; and in contrast (c) exophthalmic goitre, associated with hyperthyroidism. In the view of the writer it is possible to add a fourth type, the mongol, which he believes to be a congenital form of exophthalmic goitre. Few similarities between this condition and mongolism are obvious. Hyperthyroidism in the adult causes definite symptoms, and were such a condition to exist in a rapidly developing foetus and cease at birth—even as a sudden and complete remission may occur in exophthalmic goitre—the resulting infant would, it is believed, at birth present the features of mongolism. In support of such a theory, one must bear in mind the responsiveness to environment and altered conditions during growth, of all structures, including muscle, tendons, glands, skin, etc. It is conceivable that antenatal hyperthyroidism causes the general muscular hypotonus and explains the pot belly, hernia, over-flexibility of the limbs and low blood-pressure of the mongol. On a closer examination of the problem it seems remarkable and more than a coincidence that in both conditions so many similar
points are attacked, even although the results of the attack differ. A more careful examination of the condition of the eyes—a characteristic feature in both diseases—reveals the reason for the different results. From intrauterine protrusion of the eyeballs there would result stretching of the coverings of the eyeballs and of the developing ocular muscles and pressure on the eyeballs. This would account for such features as the thin eyelids, the high arched brows, small eyes and liability to polar cataracts, and the defective and falling-out eyelashes. Stretching of the tissues over the bridge of the nose would explain the absence or ill-development of the nasal bones with flattening of the bridge of the nose, and the stretch and pull from this region would account for the short squat nose, while the retraction of the point of the nose would explain why the nostrils look forward and are narrowed. The increased intraorbital pressure would explain the thinning of the orbital bones and, if the protrusion of the eyes ceased at birth, the resulting slackness would ill fit the eyeballs, germs and dirt would be harboured, and cause the blepharitic and other inflammatory troubles so common in mongols. The slanting eye may be explained by antenatal hyperthyroidism causing eyeball protrusion and contraction of Landstrom’s muscle in the foetus. The undersized and stunted growth is the result of changes in the eyes, the hands, the feet, the vertebral column, skull and brain. In the mongol ontogeny has stopped short at a late stage in the life history of the human foetus, and yet development has gone on to maturity and viability. Thyroid experiments with tadpoles seem to confirm this theory. Other conditions as well as mongolism have been attributed to endocrine disturbances by some authorities, by others to “reversion.” It is more likely that a theory which incorporates both views is the correct one.

C. S. R.


A positive correlation was found to exist between dysfunction and I.Q. when a glandular-dysfunctioning group, whose average I.Q. was 74, was compared with an unselected clinical group whose average I.Q. was 78.

When the glandular dysfunctioning groups were separated, the lowest correlation between dysfunction and I.Q. seemed to exist in the hyperthyroid group and the highest in the hyperpituitary group. The other groups presented a correlation similar to that of the unselected clinical group. It should be noted that many of the groups were too small to be really significant.

From a re-examination for intelligence-quotient ratings, it would seem that the pluriglandular cases made the greatest appreciable gain in I.Q. after glandular therapy was administered. This gain was 4 points. It did not appear that there was any appreciable gain in I.Q. rating after glandular therapy, especially in the hyperpituitary cases, in which an actual loss of two points occurred. The average net gain in I.Q. points when all cases were considered was 1·5 points. The average gain in points when the loss was not taken into account was 3·5 points per individual.

C. S. R.
Eighty-two reports of cases of lipodystrophy are here reviewed. Fifteen patients were markedly self-conscious about changes in their appearance. In 17 cases the families or friends were worried about the patient's health. In 8, nervous or mental symptoms were rather marked. In 43 no abnormality of behaviour was noted. There seemed to be no psychiatric symptom-complex common to lipodystrophy, aside from self-consciousness and the tendency to share in the alarm of friends and relatives. Psychiatric symptoms when present seemed on the whole to be psychoneurotic. No constant neurological symptoms or signs were observed accompanying lipodystrophy. Although weakness is a usual symptom at one stage or another of lipodystrophy, no general symptom-complex or diseases can be closely related to it until more cases are available for study. Nervous symptoms in all cases resulting from self-consciousness over personal appearance are not constantly present. No conclusive evidence has been collected to support the theory that the integrity of the nervous system is affected by the disorder.

C. S. R.


Gibson records four cases of infantile tetany which were treated with parathyroid extract given hypodermically. In three of the cases the rise which occurred in the serum calcium and phosphorus was definitely related to the recovery from accompanying infection. The fourth case, which was complicated by thymus enlargement, proved rebellious to treatment of any sort.

He stresses the value of the accepted means for raising serum calcium and phosphorus—cod liver oil, calcium by mouth and quartz lamp irradiation—and he deprecates too great reliance on parathyroid extract alone.

P. W.

Psychopathology.


The origin of the smile does not seem to have been as yet satisfactorily explained by psychologists. In order to trace the origin of anything we must have recourse to the comparative method, that is, we must collect all the different varieties and from them reconstruct a parent form that will explain them all. We have to search for the smile among other animals besides man. When a dog is pleased, especially when it is full of fun, it opens its mouth slightly, draws back the corners of the mouth, and bares its teeth. If it is tickled under the forelegs as it is lying, it is apt to draw back the corners of the mouth slightly.