Endocrinology.


This study of the effect of therapeutic measures in Graves' disease provides further evidence of two functions in thyroid physiology. These are: (a) the secreting functions, and (b) the iodo-celloid function. They are not mutually derivative, for it has been shown that iodo-celloid cannot be the mother-substance of secretion proper, nor secretion proper the mother-substance of iodo-celloid.

The relation of the two functions to Graves' disease is shown by the following findings:

1. The secretary activity of the gland is directly related to the thyrotoxicosis of Graves' disease.
2. The thyrotoxicosis is relieved by simple removal of pure secreting tissue.
3. Iodo-celloid function has only an indirect relation to the thyrotoxicosis.
4. An absolute loss of a thyroid reserve of iodo-celloid can occur in Graves' disease (48 per cent. of cases).
5. This mobilization of celloid depends upon some factor in the secretion, for the following reason: when iodine feeding is excluded, excision of pure secreting tissue causes, or allows, a reserve of active normal iodo-celloid to reappear in the remainder of the gland.
6. Iodine feeding can also re-establish a reserve of normal active iodo-celloid in the gland.
7. However the thyroid reserve of iodo-celloid is re-established it does not abolish the thyrotoxicosis.
8. There is no absolute lack of circulating iodine in Graves' disease, but
9. A relative lack of circulating iodine may complicate Graves' disease (48 per cent. of cases).
10. This relative lack of iodine is relieved by iodine feeding, but the effect on the thyrotoxicosis is not yet clear.


The authors point out the necessity for repeated hypodermic injections of pituitary posterior lobe extract in patients with diabetes insipidus. As an alternative route of introduction they have applied the extract locally within the nose in eight patients and record the results. At first they sprayed the roof of the nasopharynx with the extract and found that the polyuria was completely controlled and that this method of therapy was as beneficial as
in muscular injections; they then soaked a pledget of cotton wool with the extract and introduced this into the nose; this method was also found as good. Further, they were able to demonstrate that a small dose of the extract was sufficient by the intranasal method and that the effect was of longer duration.

E. A. C.


Hypophyseal cachexia is characterised by extreme emaciation or cachexia, which is said to be more marked in the trunk and extremities than in the face. In the average case the loss of weight varies from 22 to 44 pounds, but sometimes there is no cachexia. Regressive changes in the skin are also found, which often give to the patient the appearance of extreme old age. In the adult, the pubic and axillary hair falls out and the jaw often atrophies from loss of teeth without any evidence of decay. Trophic disturbances of the nails are sometimes found and certain vasomotor disturbances, such as cyanosis and sclerodermatic cædema, have been described. The blood-pressure is low and the pulse-rate retarded. Added to this picture is a group of symptoms which may be attributed to pituitary depression. The patient complains of weariness, exhaustion and muscular weakness, not unlike myasthenia, and in the course of time is incapacitated and later confined to bed.

There is a secondary anaemia and an eosinophilia of from six to 18 per cent. The basal metabolic rate is decreased, but this can hardly be said to be peculiar to this particular syndrome. There is often a disturbance in salt and water metabolism, with water retention and oliguria. The symptoms are the reverse of those of diabetes insipidus, and the cachexia may be due to the disturbance of salt and water metabolism, rather than to the involvement of any specific pituitary function.

Certain symptoms of hypofunction of the anterior lobe may be found. In the adult female, amennorrhœa and atrophy of the uterus and ovaries occur; in the male, impotence and atrophy of the testes; in children, arrest in the development of the gonads.

The nervous and psychic symptoms include somnolence, apathy, states of excitement, delirium, hallucinations, loss of memory, and occasionally epileptic seizures.

The pathology of the condition is not well defined. Cases have been attributed to embolism in patients in the puerperal state, others to lesions of the pharyngeal duct, to pituitary tumours, to tuberculosis, syphilis, infection and haemorrhage in the pituitary body, and to pituitary trauma associated with fractures of the base of the skull. Frazier reports two cases. In the first, that of a boy aged 17, operation disclosed a cyst of the pharyngeal duct. The second case was that of a man, aged 20, who had shown apathy and lack of energy for 13 years. His appearance resembled that of a boy in his teens.
He was undernourished and underdeveloped, with a dry scaly skin and absence of body hair. A transfrontal craniotomy exposed a cyst of Rathke’s pouch. When the patient was seen two years later a striking improvement was noted. He had grown six inches and had become mentally and physically alert with marked improvement of vision.

R. M. S.


In a series of children suffering from tetany in association with rickets the effect of various agents upon the serum calcium was observed. Those given irradiated ergosterol in doses of 4 mg daily obtained quickest clinical relief and the serum calcium rose to normal on the average in seven days. This form of medication was found more prompt than cod liver oil or irradiated cholesterol. Prompter effect is obtained by the administration of calcium chloride along with the irradiated ergosterol. Unfortunately the authors have not attempted to show the origin of the increased serum calcium when ergosterol alone was administered; and the question whether ergosterol mobilized the body calcium or promoted the absorption of ingested calcium has not been settled.

E. A. C.


The macrocephalia or macromelia paraesthetica described by the author is characterized by a suddenly arising feeling of growth of the head and of separate parts of the body. This symptom may be observed in different endocrino-vegetative disturbances, especially in hyperpituitarism. It seems to be closely related to the pseudomelia paraesthetica described by Bechterew, and is apparently produced by irritation of proprioceptive-sensory fibres that transmit the position of the parts of the body.

R. G. G.

Psychopathology.

Psychology.


From a survey of the reported differences between the sexes in the association of ideas as demonstrated by traditional types of word association technique, two well-established facts emerge: (1) significant sex differences in the quality of word associations as indicated (a) by their content (type, extent, value, normality) and (b) by their form, are found in a number of cases where the groups compared are unequal in experience; they are not found in the few cases where