

Silberberg (2) reported his experiences in the guinea pig with anterior pituitary treatment following partial thyroidectomy. In Figure 6 of his report he illustrated a section of guinea pig thyroid taken from an animal which had received 18 days' treatment with  $1\frac{1}{2}$  cc. of anterior pituitary extract in daily dosage following removal of one lobe of the thyroid. The appearance illustrated was entirely comparable to that seen by Collip and Anderson. It showed evidence of hyperplasia plus a moderate degree of involution despite continuous and prolonged treatment.

A similar appearance was incidentally noted by Schockaert (3) in the duck treated by fresh suspensions of anterior pituitary of heet. In subjects treated 19 to 24 days a pathological picture similar to that of the thyroid of man in the chronic stages of Basedow's disease<sup>1</sup> was recog-



Figure 3. Camera lucida drawing of thyroid gland of rabbit No. 701, which received treatment with a proved thyrotropic extract for twenty-eight days (involutional and atrophic (x 430)).

ized. His illustrations indicate stages of partial involution and regressive hyperplasia in these animals. No definite evidence of atrophy was seen and no metabolic data at this level of "thyroid stimulation" were recorded. However, the extensive metabolic data collected by Szarka (4) and reported by Evans in his recent monograph indicated a primary rise in oxygen consumption in rats subjected to treatment with anterior pituitary alkaline extract. The rise was not found if the injections were preceded by total thyroidectomy. It was not eliminated by castration. The role of the thyroid in the metabolic rise, as independent from the gonadotropic effect of extracts, was therefore quite clear. These authors could offer no explanation for the gradual decrease of the oxygen consumption on prolongation

Our experience in of pituitary origin was suitable for these purposes. Our experiments in experiments.

Thyreotropic hormone form (Collip and others) for the above purposes. Thyreotropic means seen non-surgical means seen involution of the thyroid gland of atrophic character. Application of the thyroid gland is brought forward and incidentally seen to those which we have

The phenomena described in this paper are well summarized by Collip (5) after iodine treatment. The re-introduction of the gland. The re-introduction of hyperplasia and normal to hyperplastic

The studies of Maximal metabolic decrease to cessation of treatment was not stated, but meant this decreased metabolism obtained following total oxygen consumption below the consumption of the treatment. After treatment reproduced the anatomical picture quite faithfully, in quite similar to that seen after iodine treatment. The anatomical picture reproduced the anatomical picture quite faithfully, in quite similar to that seen after iodine treatment. The anatomical picture reproduced the anatomical picture quite faithfully, in quite similar to that seen after iodine treatment.