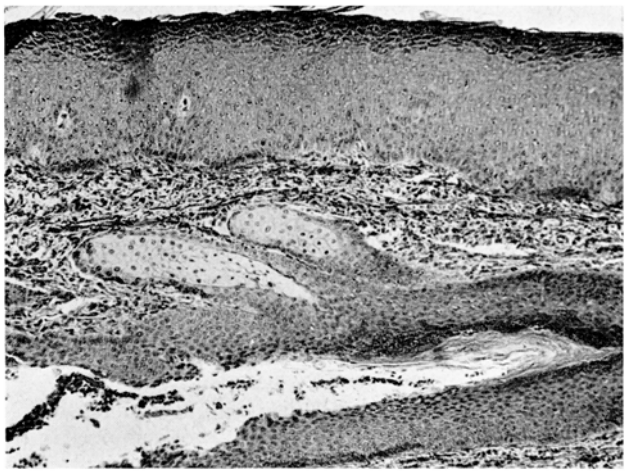

Fig. 2. Nipple of guinea-pig treated with hormoestrol 0.05 μg for 20 days. Acanthosis and sebaceous glands are increased.

Control guinea-pigs		
Guinea-pig No.	Sebaceous glands of left nipple	right nipple
1	+±[a]	+
2	±	+
3	+	±
4	±	±
5	±	+
6	±	±

Treated guinea-pigs with hormoestrol 0.05 μg		
Guinea-pig No.	Sebaceous glands of left nipple	right nipple
1	+++	+++
2	+±	+
3	+++	++±
4	+	+±
5	++	++
6	+±	+++

[a] The size of the sebaceous glands is given by the following symbols (±, +, +±, ++, ++±, +++). The difference between the control and the treated guinea-pigs is highly significant: $X^2 = 10{,}741$.

Results and discussion. 10 and 20 days after the beginning of the experiment, we noted that under the influence of estrogen there is a net increase in the size and apparently in the number of the sebaceous glands together with a marked acanthosis (Figures 1 and 2, Table).

This result is in contradiction to results obtained by different authors. 'It is now well known from the results of DE GRAAF, EBLING, LAPIÈRE and others that estrogens cause a reduction in size of the sebaceous glands'[4].

Our results confirm once more the parallelism between acanthosis and the augmentation of the sebaceous glands.

The development of the sebaceous glands in the nipples of guinea-pigs under the influence of an estrogen, shows that under certain conditions estrogens can (contrary to what is believed) provoke a hypertrophy of the sebaceous glands. This perhaps explains why there is no unanimity in the indication of estrogens in the treatment of acne vulgaris[5].

Résumé. Les glandes sébacées au niveau de la tétine du cobaye augmentent sous l'influence d'oestrogènes.

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Localization of the Hypocalcemic Factor in the Pituitary Gland

A hypocalcemic effect of the pituitary extract has been shown in rabbits[1-3] and rats[4]. To date, to our knowledge, no study has been undertaken to establish its localization. The present study is concerned with its existence only in the anterior lobe of the pituitary gland.

Material and method. Seventy albino rats, weighing 150–200 g and 300 guinea-pigs were used for this study. All rats were placed on a low calcium diet for 3 days prior to the experiment. Pituitary glands of 300 guinea-pigs were removed immediately after decapitation. Anterior and posterior lobes were separated, frozen immediately on dry ice and stored. The 2 pools were thawed and homogenized in chilled physiologic saline. The crude homogenates were then subjected to centrifugation at 11,000 *g* for 10 min at 4 °C and the supernatant was used. All bioassay rats were anaesthetized with pentobarbitol. Tracheostomy was performed. A fine polyethylene catheter was inserted into the heart through the jugular vein for infusion and for extraction of blood. 1 mg of heparin was administered to each animal to prevent clotting of the blood. The anterior or posterior lobe extracts of 10 guinea-pigs, 1.5 ml, was injected into each bioassay rat within 1 min.

The experimental animals were divided into 3 groups as follows: animals in group 1 were injected anterior lobe extract, in group 2 posterior lobe extract and in group 3 physiologic saline. Blood samples were obtained at 0, 10, 20 and 30 min. Blood calcium was determined by the method of REHELL[5]. All samples were run in duplicate.

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Plasma calcium levels before and after injection of anterior lobe or posterior lobe extracts of the pituitary gland or physiological saline

Experiments	No. of assay rats	Infused solutions	Plasma calcium levels (mg%) Control values	Lowest values	*P* values
1	30	Anterior lobe extract	10.990 ± 0.084	9.013 ± 0.084	< 0.01 as compared with physiological saline infused control
2	30	Posterior lobe extract	10.956 ± 0.093	10.383 ± 0.093	> 0.05 as compared with physiological saline infused control
3	10	Physiological saline	10.260 ± 0.145	9.810 ± 0.145	

Statistical analysis: the difference between the means were tested by Student's *t*-test[6].

Results and discussion. There was no significant fall in plasma calcium levels in posterior lobe extract or saline injected groups. A significant fall in plasma calcium level was observed in anterior lobe extract injected group (Table). The fall in plasma calcium occurred within 10 min after injection in 12 cases, after 20 min in 7 and after 30 min in 11 cases. A total of 17 rats died, 6 of them had been injected with anterior lobe extract and 11 with posterior lobe extract. The cause of death is still under study. Preliminary results[7] show that the injection of the pituitary extract produces a prominent fall in blood pressure and shock. At autopsy, severe congestion in all tissues, being more pronounced in adrenal gland, was found. Neither hypothalamic and brain tissue extracts nor physiological saline produced a fall in blood pressure and subsequent death. The infusion of glucocorticoids before the administration of pituitary extract protects the animals from shock and death.

Zusammenfassung. Erste Untersuchungen der Autoren über einen blutkalziumsenkenden Faktor aus der Hypophyse wurden ergänzt. Dabei wurde festgestellt, dass dieser kalziumsenkende Faktor nur im Hypophysenvorderlappen vorhanden ist.

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Separation of Two Components of Adenovirus Type 12 Induced T-Antigens with Sephadex G-50

Hamsters and mice carrying virus-free tumours induced by adenovirus type 12 develop complement-fixing humoral antibodies to tumour antigens (T-antigens)[1-5]. These T-antigens are characterized by (a) their virus specificity; that is, they are coded for by viral information incorporated in the genetic apparatus of the tumor cells[2,5-7]; (b) their antigenicity, distinct from viral antigens; their synthesis does not require replication of virus DNA[5-7].

The biological function of the T-antigens is not yet known. Another question is whether the T-antigens consist of 1 single or more antigenic components. SHIMOJO et al.[8] reported 2 antigens; 1 non-precipitable by ultracentrifugation, called TS-antigen, the other precipitable by ultracentrifugation, TP-antigen. GILEAD and GINSBERG[9,10] isolated and purified a heat-labile single type of T-antigen, obtained from KB cells infected with adenovirus type 12, with an average sedimentation coefficient of 2.40 S. HOLLINSHEAD et al.[11,12] described a method, using Sephadex G-100 chromatography, for isolation of a heat-stable and a heat-labile species of T-antigens, also obtained from KB cells infected with type 12 adenovirus. In this preliminary communication we report a method for separation of 2 components of antigens from adenovirus type 12 induced hamster tumours with Sephadex G-50 gel filtration.

Materials and methods. Preparation of the tumour-antigen-extracts: tumours were produced by s.c. inoculation of adenovirus type 12 (strain Huie) preparations (infectivity titre in KB cells $10^{2,6}$ $TCID_{50}$/0.2 ml) in newborn hamsters. Tumour transplants were carried out by s.c. inoculation of a single cell suspension of adenovirus type 12 induced tumours into suckling hamsters. Preparing

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