

the process of calcification. It is furthermore shown that the endothelial cells of the capillaries of the lungs have the property of splitting fats and liberating the fatty acid radical. By micro-chemical means the stages in the process may readily be followed.

As the fat within the endothelial cells has been phagocytosed and lies in vacuoles in the protoplasm where it is acted upon by lipolytic secretions of the cell, it differs but little, in relation to cell activity, from fatty deposits which are extracellular and are acted upon by lipases present in the serum. In other words, the phagocytosed fat of endothelial cells has an entirely different bearing to the cell from the accumulation of fats in fatty degeneration.

Our present findings are in perfect accord with the views we have formerly expressed upon the process of pathological calcification.

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Tumor-like growths in rat stomach following irritation.

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Fibiger's announcement of the production of carcinoma in the rat stomach through the agency of nematodes has not as yet been controverted. We wish briefly to record the fact that somewhat similar pictures can be produced by other means of irritation. By suspending in the stomach cavity woolen balls saturated with chemical irritants or by injecting the chemical irritants into the wall itself, polypoid growths of stratified squamous epithelium can be produced. By using celluloid balls with spinous processes these polypoid growths can be made to reach considerable dimensions. When these irritants are applied to the glandular portions of the organ, marked localized thickenings of the mucosa are produced. The chemical irritants cause a marked downgrowth of stratified epithelium resembling the cancrioid type described by Fibiger, while the mechanically induced proliferations are characterized by a marked overgrowth of the cornified layers and relatively slight downgrowth. In the glandular por-

tions of the organ the proliferation under chemical irritation assumes the character of a cystadenoma which involves the stomach wall to a considerable depth.

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The inhibition of peristalsis by the oil of chenopodium.

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Most of the observations were made on isolated segments of intestine taken from different animals and placed in Locke's solution through which a constant stream of oxygen was allowed to pass. Oil of chenopodium added to Locke's solution produced a marked decrease of contractility. An emulsion of 1 : 10,000 oil of chenopodium decreased the force and frequency of the contractions soon after the gut was exposed to the oil. When subjected to the influence of oil of chenopodium for a short time, 10 to 15 minutes, recovery, though incomplete, took place if at the end of this time it was returned to Locke's solution alone. When the tissue remained longer in contact with the oil, recovery was slight if Locke's solution was substituted for an emulsion containing oil of chenopodium. The depressing effect of chenopodium was found to vary in different portions of the gut, being much more marked in case of the colon than in segments taken from the small intestine.

The intravenous injection of chenopodium given in the form of an emulsion with neutral olive oil or cocoanut oil and acacia inhibited peristalsis. One tenth to 0.125 c.c. of the oil of chenopodium was followed by decreased frequency of peristaltic action and in some experiments the administration of 0.125 to 0.2 c.c. per kilo completely abolished the movements of the cecum for a considerable period of time.