The pathologic lesion of acne is in the sebaceous glands of the hair follicles, while in furunculosis the sweat glands become infected. It is of interest, then, to note that in one patient with folliculitis barbae, in which the hair follicle is involved, the amount of calcium in the blood was increased.

GRAVIMETRIC METHOD USED.

The blood was collected in a flask containing 90 mg. of sodium citrate. After centrifugalization the plasma was drawn off and evaporated in a platinum dish; ashed with addition of nitric acid. The ash was taken up with dilute hydrochloric acid. The solution was made alkaline with ammonia and then faintly acidulated with acetic acid. The iron was precipitated with 20 per cent. sodium acetate. The calcium was precipitated from the filtrate with 4 per cent. ammonium oxalate. The solution was allowed to stand over night. Gooch crucibles packed with asbestos were used. The calcium was weighed as calcium oxide.

66 (1526)

The preparation of animal nucleic acid.

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The proposed method depends on the following properties of nucleic acid: (1) that it is separated from its protein combination by treatment with sodium hydroxide, (2) that it is soluble in dilute acetic acid and, (3) that it is precipitated by hydrochloric acid, or in the case of dilute solutions, by hydrochloric acid in the presence of magnesium sulphate.

Fresh, trimmed glandular tissue, finely hashed, is mixed well with twice its weight of tap water and 100 c.c. of 50 per cent. sodium hydroxide is then added for each kilogram of tissue. The material is then heated until all except the connective tissue is dissolved (40° C.–70° C.). Neutralize hot and at once with strong acetic acid; the reaction should finally be distinctly acid to litmus. Bring to a boil and filter hot on large folder filters.

When the filtrate has cooled an aliquot of 200 c.c. is taken and

concentrated hydrochloric acid diluted with an equal volume of water is added from a burette until precipitation is complete, carefully avoiding an excess. If the nucleic acid does not flock out after the solution has been quiescent for several minutes, the same process should be repeated upon another aliquot after first adding 5 per cent. of magnesium sulphate ($MgSO_4.7H_2O$). Magnesium sulphate renders nucleic acid more insoluble. A proportionate quantity is then added to the bulk of the solution. The nucleic acid, which forms large flocks and slowly settles, is washed successively with 60, 80, and twice with 95 per cent. alcohol by decantation, filtered on hardened filter paper, washed again with 95 per cent. alcohol and finally with ether and then rapidly dried at about 70° C.

The yields from different glandular tissues vary from 0.8 per cent. to 1.5 per cent.

67 (1527)

Some human digestion experiments on raw white of egg.

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Experiments to determine the relative digestibility of raw and cooked white of egg in the human subject were carried out with four young women students in two periods of five days each. As they all had practically the same food requirements, they took the same diet, quantitatively and qualitatively, throughout the experiment, the only variation being the change from raw whites to cooked whites for half the time, and some differences in the ways in which the whites were prepared. The egg whites furnished 48 grams of protein per capita per day out of a total of 67 grams. Besides the eggs the diet consisted of rice, cream, saltines, butter, olive oil, fruit juice and a small amount of lettuce. The cooked eggs were never subjected to a temperature or method of cooking which would toughen them unduly; the raw whites were taken unbeaten by one person, all beaten light by another, and about half and half by the other subjects.

The coefficients of digestibility for the two diets have been calculated for the total protein and for the egg white protein alone.