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Urinary Proteins: Further Studies on Proteins of Nephritis.

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Our studies[1] on urinary proteins in nephritis were continued by subjecting these proteins to recrystallization. Proteins from 2 of our 10 cases were carried through the fourth crystallization. The protein from the mother liquor of the fourth crystallization, in both of these cases, showed no precipitin reaction with anti-serums for Bence-Jones protein, blood serum euglobulin and blood serum pseudoglobulins. This failure to react with antieuglobulin and antipseudoglobulin serums indicates that this protein fraction is different from that of the crystals of the second crystallization. These proteins react somewhat differently immunologically from the protein of the main crop of the fourth crystallization in their behavior toward antialbumin serums. Work is being continued on these proteins in an attempt to learn more about their relationships.

[1] Welker, W. H., Thomas, W. A., and Hektoen, L., *J. Am. Med. Assn.*, 1926, lxxxvi, 1333 and 1334.

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Plasma Calcium Raising Principle of Bovine Parathyroid Glands.

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The method herein described has been found to extract the active principle from bovine parathyroid glands in highly concentrated form.

Two to three grams of finely divided acetone, dessicated, defatted glands are triturated with one and one half volumes of three per cent hydrochloric acid, transferred to 1x8 Pyrex tubes, placed in a water bath, and maintained at a temperature of 70 to 75° C. for 20 minutes.

The extract is made faintly alkaline to litmus, then 0.3 per cent hydrochloric acid is added until a degree of acidity is produced such that the precipitate assumes a flocculent form, and settles rapidly, leaving a clear supernatant fluid.

Filtrate I is made up to a volume of 100 to 150 cc., adjusted to a pH of 5.5 to 5.8, and, sufficient anhydrous acetone added to bring to a concentration of 60 to 70 per cent in acetone. After standing 12 to 15 hours in the ice chest, precipitate II is separated from filtrate II.

Filtrate II is evaporated to dryness *in vacuo* at 40 to 45° C. The residue is dissolved in two and one half per cent trichloracetic acid, corresponding in volume to filtrate II. A finely divided precipitate slowly develops, and after standing 12 to 15 hours in the ice chest, is separated by centrifugalization, or if still in suspension, by filtration. It is then dissolved in strong alcohol and precipitated with anhydrous ether.

Eight to 20 milligrams of such a preparation have been found to produce an increase of 4 to 5 milligrams, in the plasma calcium of dogs ranging in weight from 12 to 19 kilograms, within 12 to 15 hours following subcutaneous injection.

The active principle has been extracted by liquid ammonia from the residue obtained by the evaporation of Filtrate II. It has also been extracted by ethyl lactate and by ethyl butyrate. It is not adsorbed by kaolin at pH values of from 1 to 5, although at higher values it appears to be adsorbed, but has not been released.

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The Histogenesis of the Thymus as shown by Tissue Cultures, Transplantation and Regeneration.

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The histogenesis of the thymus is still unsettled. The majority of investigators, on the basis of the work of Hammar and Maximow,[1] consider the thymus to be a lymphoepithelial organ in which the original entodermal epithelium of the primordium transforms into a reticulum and is infiltrated with common lymphocytes. Some workers have recently resuscitated the old idea of Stöhr according