

100 cc. of serum, with corresponding low K/Ca ratios. The pulse rate was low (42-60), but the blood pressure within normal limits.

On intravenous injection of the antigen no appreciable difference was noted in the response of the animals with hypercalcemia, and those not treated with the parathyroid extract. The duration and degree of fall in blood pressure, as well as the other manifestations of the shock, (leukocyte count, coagulability, gastro-intestinal effects and temperature changes) were practically identical.

3368

Capillary Permeability During Pulmonary Tuberculosis.

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In a paper previously published¹ a method has been described whereby clinical variability in capillary permeability has been examined by means of the blister (estimated by per cent of protein exudated, and by duration of time required for the blister to form).

In the present study we have examined such cantharides blisters produced on 250 tuberculous patients.

It has been found that there is a progressive increase in the degree of permeability with active progression of the disease, illustrated in the following table.

Subjects	No. in Group.	Ave. Permeability Ratio.	% Below Ave.
Normal students	66	68	50%
Students with evidences of more than the usual amount of healed tuberculous lesions	24		58%

1. A and B cases		
(N. T. A. Classification)	9	55 per cent
M. A. A. Cases	33	42 per cent
M. A. B. Cases	11	43 per cent
F. A. A. Cases	15	33 per cent
F. A. B. Cases	29	17 per cent
F. A. C. Cases	9	22 per cent

When the blister time was examined it has been found that for the normal, as well as for the I A, I B, and the M. A. A. cases, the

average was about 7 hours. The M. A. B. cases showed a considerable prolongation (9 hours); with progression of the disease the blister time was progressively shortened.

The changes in the blister time would indicate a moderate increase in sympathetic tonus of the skin during the M. A. A. stages which, however, gives way to a parasympathetic overbalance with progress of the disease. There is evidently a distinct increase in capillary permeability with increased activity of the tuberculous process. Exudative cases in general have capillaries that are considerably more permeable than the normal.

¹ Petersen, W. F., and Willis, D. A., *Arch. Int. Med.*, 1926, xxxviii, 663.

3369

The Precipitin Content on the Protein Fractions of Immune Serum.

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(Introduced by William H. Welker.)

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Rabbits were immunized against crystallized egg albumin. The antiserum produced was separated into the protein fractions, euglobulin, pseudoglobulin, and albumin by 33 per cent, 46 per cent, 64 per cent, and 100 per cent saturation with $(\text{NH}_4)_2\text{SO}_4$. A precipitin test by the contact method was made on the whole serum and on each protein fraction, in an effort to discover with which fraction the precipitin came down. In all 10 cases the whole serum gave a positive test, with precipitin titers ranging from 100,000 in 2 cases to 10,000,000 in 1 case. The precipitin was carried down with the euglobulin fraction, but during dialysis the pseudoglobulin was split off by hydrolysis and the precipitin remained in this water soluble fraction. The albumin fractions were found free of precipitins in all cases. The precipitin titer was less in the globulin fraction containing the precipitin than in the whole serum, calculated on the basis of equivalent globulin content.