106 (1038)

Comparative physiology of immune and anaphylactic smooth muscle. (Preliminary communication.)

By WILLIAM H. MOORE (by invitation).

[*From the Department of Bacteriology and Immunity, Leland Stanford Jr. University.*]

The typical anaphylactic reaction in smooth muscle (guinea-pig uterus) is a rapid marked contraction, with little or no tendency toward recovery. The muscle usually remains fully contracted at the end of an ordinary experiment (30 to 60 minutes).

The typical reaction in an immune muscle is a similar contraction, followed by a fairly rapid recovery. Relaxation usually begins in from 2 to 3 minutes. The muscle may be fully relaxed by the end of 15 minutes.

If an immune muscle is rendered bloodless by transfusing it with Locke's solution, its reaction to the foreign proteid is increased. The muscle also loses its power of recovery (relaxation) after the contraction. The transfused immune muscle, therefore, reacts in the same way as a transfused anaphylactic muscle.

From this it would appear that the fixed cellular elements are identical in the two muscles, and that the differences in their reaction are due to differences in the circulating substances they contain.

107 (1039)

Relation of dosage to reaction in anaphylactic shock. (Preliminary communication.)

By MARCUS C. TERRY and E. R. ANDREWS (by invitation.)

[*From the Department of Bacteriology and Immunity, Leland Stanford Jr. University.*]

In support of the anaphylatoxic theory of anaphylaxis it has been pointed out that to produce a fatal dose of anaphylatoxin *in vitro* certain quantitative relations must be maintained between the foreign and the anaphylactic serum. An excess of the foreign protein results in the production of a non-fatal dose of the toxin.