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EDITORIAL

WOUND SHOCK AND THE VASOMOTOR CENTER.

Drs. W. T. Porter and E. Merson, of the Laboratory of Comparative Physiology in the Harvard Medical School, Boston, have devoted much study to the subject of wound shock and the vasomotor center.

The statement has been issued from the Harvard Laboratory that wound shock was caused by fat emboli. In a recent article in *The Boston Medical and Surgical Journal*, these authors give further account of their work. They advance a good deal of proof that wound shock is caused by the plugging of the capillaries in the bulb or vasomotor region by fat globules. By injecting one-fifth cubic centimeter of neutral olive oil into the subclavian artery of a dog, there followed in a few moments a rapid fall of the diastolic blood pressure from 160 Min. Hg. to 40. This experiment was repeated and with similar results. It has been quite abundantly proven that a minute quantity of fat in the blood will cause a characteristic fall in blood pressure, and the concomitant symptoms of wound shock, whenever the blood supply to the vasomotor center is interrupted by the plugging of its capillaries.

A microscopic study of the sections through the vasomotor region, stained with Sharlach R, abundantly supports the conclusion that minute quantities of fat may cause shock.

Shell fracture of the femur and multiple wounds of the subcutaneous fat give rise to many fat globules in the blood. The proof thus becomes quite clear that in many forms of wounds, such as those caused in the war, where there is fracture of bones and injury to the fat, there are thrown into the blood fat globules. When these reach the capillaries of the vassomotor center the onset of shock is immediate.