normal blood. So long as there was any circulation the animal could be readily resuscitated. No later ill effects were noted. This method was contrasted with inhalation of oxygen under pressure with forced respiration with the administration of saline infusion and was found to yield the best results.

surgical Shock. Surgical shock is a term designed to cover a group of phenomena due to certain altered physiological functions. The essential characteristics from the viewpoint of the practical surgeon is the state of lowered blood pressure. So long as the pulse is satisfactory the surgeon entertains no fears for the safety of the patient. In the fatal cases no pathological lesion is found. In those that recover no loss of function is apparent. So far as we now know, death from shock is due to failure of the circulation-a failure to sufficiently supply the brain with blood-an intravascular hæmorrhage. So far as our present evidence goes, the chief cause of the failure of the circulation is the breakdown of the vasomotor centres. Once the pressure is low the disabled centres suffer still more from want of circulation. In a restricted sense there arises a species of vicious circle, viz., the blood pressure is low because of the failure of the vasomotor centres and because of the consequent anæmia these centres are not able to do as much work as they could under a normal blood supply. To overcome the anæmia of this and other centers is our therapeutic objective. We then experimentally enquired whether or not by the transfusion of blood the volume may be sufficiently increased to fill up the relaxed vascular system-the by-ways, nooks and eddies-to cause more blood to reach the heart, and so to increase the outflowing stream, hence, help to overcome the cerebral anæmia, which in turn would be followed by an increased activity of the vital centres, thus supplanting the vicious circle of anæmia by the beneficent circle of hyperæmia.

It was shown in the experiments that the influence of transfusion upon the blood pressure in every grade of shock was sufficient to raise it very materially, frequently to the normal, occasionally even above it, and to so sustain it for a number of hours. It was found that the influence of transfusion upon the blood pressure in shock was almost as marked as in hæmorrhage.

After the striking effects of transfusion in the treatment of shock were fully established, we undertook another series of experiments to determine what, if any, effect a careful over-transfusion in a normal animal might have upon the prevention of shock. It was found that animals carefully over-transfused so as not to embarrass the pulmonary circulation on the one hand or overcharge the abdominal viscera on the other, then subjected to shock producing procedures, could not be killed by

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