

How to prevent Hæmorrhage.—(How to prevent hæmorrhage after the removal of Esmarch's Bandage. Dr. RIEDINGER.—*Deutsche Zeitschrift für Chirurgie*, XXVI., 5 and 6.

The greatest disadvantage attached to the use of Esmarch's bandage, is the profuse hæmorrhage following the removal of the elastic band. The hæmorrhage in profuseness depends upon the force of constriction, and the length of time which it is allowed to remain. The amount of blood lost in many cases is often more than that following digital compression.

Esmarch himself admits that there is considerable capillary hæmorrhage after the removal of his bandage, but thinks that it is easily stopped and of no long duration.

The author mentions the names of many eminent surgeons, who have seen the most profuse hæmorrhage after severe operations, particularly after amputations: the blood pouring out of the wounded surfaces as if from a sponge.

Various surgeons of England, France and Germany are mentioned, all of whom have had unpleasant experiences with this secondary hæmorrhage.

The author believes that hæmorrhage is caused through paralysis of the vaso-motor nerves; further, that through the constriction, the blood being forced entirely from the part operated, upon no coagulation of the blood takes place.

Various means have been tried to check this hæmorrhage, but they have, as a rule, not been very successful, *e. g.*, cold applications, ice, ice-water; but the hæmorrhage persists in spite of these applications often fifteen minutes, and sometimes one-half to one hour.

Esmarch recommends the ligation of every blood vessel, veins as well as arteries.

P. Bruns has ligated as many as thirty-six vessels, and still had hæmorrhage. Bardeleben has ligated all arteries mentioned in anatomy, and those vessels presenting themselves to the eye, arteries and veins, and still had considerable hæmorrhage.

The author has performed experiments on animals to see whether the sensibility of the nerves was entirely overcome by