

eight to fifteen pills of 0.05 each is sufficient, but it is suitable for continued use. Of five cases of virginal menstrual hæmorrhages in three was it efficacious, the remaining two were very anæmic girls in which hydrastis had been unsuccessfully used. While in nine cases of menorrhagia due to inflammatory disease of the pelvic connective tissues, or of the adnexa, or of malposition of the uterus associated with inflammation of the surrounding tissues, was it efficient in every case, and in twelve cases of metrorrhagia due to the same causes it acted well in eight, in one the hæmorrhage was lessened but not stopped by twenty pills, and in the remaining three it was without success. In two cases of acute gonorrhœa of the uterine mucous membrane it yielded good results. In endometritis hæmorrhagica the result was favorable in five, in one doubtful and in the remaining two without effect. Fungous endometritis he believes best treated by curettement, and on one case of myoma the hæmorrhage promptly ceased only to return in the intervals. One woman pregnant four to five months was successfully treated for hæmorrhage without exciting pains. At times patients complain of nausea and diarrhœa, and Falk has shown that in dogs and rabbits even subcutaneous use causes intestinal peristalsis. While a sedative action would be expected from its chemical composition, yet the author failed to notice any. In his forty-five cases in which operation was not immediately indicated, stypticin failed in ten cases and in four was it of doubtful use, so that the author considers it useful, especially in secondary hæmorrhages.

SERO-THERAPY OF YELLOW FEVER.

SANARELLI.—Sero-therapy of yellow fever. (*Dublin Journ. of Med. Sci.*, 1898, p. 514). It is difficult to obtain animals which are capable of tolerating large doses of the virus and

of producing serum with prophylactic and curative powers. Sanarelli used the serum of horses which had been inoculated with the bacillus icteroides. These animals had been treated from twelve to fourteen months. He simply states that its method of preparation differs from that of the diphtheritic serum. Up to the present time antitoxines have not been proved in it. It is a bacteriacide, not an antitoxine. Dogs even after a year's treatment, and able to tolerate large doses, still showed toxic symptoms and acute pyrexia after each injection. The autopsy of one such dog gave 32.72 per cent. of fat, an amount which is greater than is usually obtained in yellow fever, and even in experimental poisoning with arsenic or phosphorus. In man it is only efficacious in the early stages. In yellow fever it is the nervous system and kidneys which are especially affected; they become anuric and so also have to combat with uræmia, against which the serum has no value. Of the first series of eight cases, treated with small hypodermic doses, two died. One of these was already anuric when admitted to the hospital, and the other died of cerebral troubles. In those cases which recovered after the reactionary rise in temperature from the injection, the fever fell. The serum acted as a diuretic and these cases were free from mucous hæmorrhages. After the intravenous injection of a small dose (15 c.c.) the patient remains quiet, but there soon appears a reddening of the face and chest with injection of the conjunctiva; and the pulse becomes almost normal. He may have a feeling of warmth about the head with a tendency to vomit and at times attacks of cough. Some care is necessary in apportioning the intravenous dose in cases of pre-existing enlargement of the liver or spleen and myocardic lesions. Fourteen were treated by this method and of these only four died; three of these were cases for which obviously nothing could be done, and in the