

is not of as much value in the subperitoneal variety, especially in the pedunculated form, where the pedicle is long and narrow. It may be of some service where the pedicle is broad, as in the sessile growths, and where the effect of the remedy can reach the bloodvessels of the attached mass. The muriate of ammonium was employed by the late Dr. W. Atlee, who regarded it of value in the treatment of fibroid growths of the uterus.

After these remedies, operative interference may be employed, but there are two very important questions or conditions to be considered before any operation is to be decided upon. In the case of fibroid growths in which the menstrual flow is so great as to drain away the life of the patient, it may be justifiable to interfere with the knife. There is also another condition which would warrant operative measures, and that is the enormous size of the mass, making it a burden to the patient too great to bear.

In regard to operative interferences, the menopause can be anticipated by the removal of the ovaries. If any operation is to be performed, the removal of the ovaries, which is much less dangerous than extirpation of the uterus, is the one to be adopted. There are to my mind very grave objections to the performance of operations for the removal of fibroid masses which involve the body of the uterus or which are attached by very broad pedicles to it, and which are adherent to the viscera or abdominal wall.

A patient with a uterine fibroid can enjoy life and the growth can exist indefinitely without interfering with health. I have at this time under my care a number of patients suffering from fibroid tumors in whom I have practised the hypodermic injection of ergotine, or the aqueous extract of ergot, for a number of years. In one of these cases, I have used ergotine for the past eight years. Measurement of the abdominal enlargement in this case shows that the growth has not increased. It has, on the other hand, not markedly decreased. The patient does not lose much blood during her menstrual period, and is not rendered uncomfortable by the presence of the tumor. She is able to take part in all the enjoyments of her home, to ride out in her carriage, and to enjoy the company of her friends. I am quite sure that if I were to interfere in this case with a surgical procedure, I should terminate the life of my patient. In another case, in which I used ergot for three years, a most desirable result was obtained. In this instance, the growth was of the submucous variety. After the lapse of nearly three years, I observed that the mass was softening; and on palpation and percussion, fluctuation could be distinctly obtained. I also examined the mass from the cavity of the uterus, and found that there, too, it was softened, and fluctuation could be obtained. I therefore determined to incise the wall of the canal, which I

did, and a mass of offensive fluid escaped, containing broken down debris of muscular and fibrous tissues. My patient suffered greatly from pyæmic symptoms, and was very ill for a number of days; but by the vigorous use of antiseptic methods, washing out the cavity with antiseptic agents, as the solution of carbolic acid, surrounding her with the best hygienic conditions, and by the employment of tonics and stimulants, I was able to carry her through this critical period occupied by the evacuation of this large cavity formed by the breaking down of the tumor. Other instances of this kind have been recorded in which the effect of ergot was markedly seen. I can only explain this transformation of the solid growth to the fluid or semi-fluid condition by the cutting off of the nutrition of the growth, and the production of positive gangrene.

There are instances on record in which incision of the lining membrane of the canal has been made and ergot afterward given. In this way submucous fibroid tumors have been delivered. When the delivery has not been complete, the surgeon has interfered, and has removed the mass by cutting away portions of it at different times. This operation is attended with many dangers. Some of these dangers result from septic infection and shock. There is also the danger of the occurrence of hemorrhage.

From the examination of the case before you, the treatment which I should adopt, would be the long continued use of hypodermic injections of ergotine, and this failing, the performance of oöphorectomy. I may say, in regard to the hypodermic injection of this remedy, that the injections should be made in the abdominal wall; and in order to avoid the occurrence of abscess, it has been my practice to carry the needle of the syringe deeply into the tissues, not stopping until the muscular structures have been reached. In none of the cases in which I have used ergotine in this way have I met with abscess. As a precaution I have frequently painted tincture of iodine around the puncture made by the needle. The form of ergot used is that known as Squibb's aqueous extract, made in a solution, the strength of which is one grain to the minim. Of this solution, I have given 25, 30, and 35 minims without producing any undesirable symptoms.

THE TREATMENT OF HYPERPYREXIA BY COLD APPLICATIONS TO THE ABDOMEN.

In a recent clinic in the *Pennsylvania Hospital* reported in the *Col. and Clin. Record* Dr. Da Costa gave the following interesting cases:

The case now before you is one of typhoid fever, only remarkable for a sustained high temperature