

change as the result of a more or less extensive necrosis.

2d. The arrest of hemorrhage has also been disputed. Many who hold this opinion do so without ever having made, or seen, an experiment on some tissue to convince themselves of the hæmostatic power of the condensed action of the positive pole, when applied to a cut and bleeding surface. Then, I am asked to explain how it is that results are not constant. I can only say that this depends upon different conditions, clinical, anatomical and physical. Clinically, hemorrhages are more difficult to suppress in the cases of interstitial and submucous fibroids. Anatomically, the arrest of hemorrhage will be more speedy and certain as the uterine cavity is more narrow and less deep. Physically, the hæmostasis becomes more decided as we augment the intensity of the electrical current, and insure the perfect coaption of the electrode with the entire extent of the bleeding surface.

To resume, the arrest of hemorrhage by electricity is arrived at in three different ways, either associated or independent of each other. The action of the current, which is a vehicle of force and of chemical action, may be studied either as it is manifested, at the poles, or in the interpolar circuit.

a. The polar action of the positive pole is hæmostatic, either at once, or some time afterward: Immediately, if the bleeding surface is totally cauterized by the application of a sufficient intensity; subsequently, after some interval from the commencement of the treatment, if the hæmostatic action has not been powerful enough in the first instance, by the appearance of an atresia, more or less pronounced, of the uterine canal. This atresia, which some gynecologists will not admit, I have the opportunity of seeing almost every day in some one or more of my former patients, although they have not yet arrived at the menopause. In certain women, with a large uterus and an expanded cavity, in which the ordinary

sound had moved with great freedom, I have discovered one, two, or three years afterward, that it could not then be introduced, and that the canal only permitted the entrance of a sound of the most diminutive size. Now, this cicatricial atresia (which, however marked it may be, and as a new observation it is interesting to notice this, is not accompanied with dysmenorrhœa) is the physical reason of the proposed electrical hæmostasis, and of the permanence of the results established.

b. The interpolar action is equally hæmostatic in a tardy manner, and in an entirely different way, without the polar action being in any degree implicated. Indeed, there is reason to believe that we may stop hemorrhage, though it must be confessed more slowly, without at all cauterizing the mucous membrane, and by restricting the treatment to galvano-punctures made in the tissues of the tumor itself. The denutrition of the substance of the fibroid will, after a certain time, bring about a progressive stoppage of the hemorrhage, without the mucous membrane having been touched. Either pole may be used for this purpose, though I incline to prefer the negative. It is more to be relied upon because it is more denutritive than the positive. I have, as a matter of experiment, given clinical demonstration of this separate interpolar hæmostatic action, by treating several hemorrhagic fibroids by galvano-punctures only, without any intra-uterine cauterization. I am convinced, however, that the combined use of the two methods will be found more certain in producing the hæmostatic action, in cases where the simple intra-uterine cauterization has shown itself ineffectual.

3d. The cessation of pain and of the effects of compression will vary among patients as much as the causes which produce them. Generally, this takes place coincidently with the retrogression of the tumor. In other instances, on the contrary, it is the initial phenomenon which precedes all others. This may be accounted for either