

6thly. It is *antiseptic* in itself, by virtue of the high cauterization of the active pole.

7thly. It is for the most part *easily supported*: anæsthetics being only required for certain cases of galvano-puncture.

8thly. It does not *impose upon the patients any forced seclusion*; and mostly admits of their continuing the usual habits of life, and even of doing hard work, in the intervals between the operations.

9thly. But over and above all these considerations, there is one dominant point to be advanced, which alone is of weight enough to turn the scale in favor of the electrical treatment. The simple chemical cauterization, for which you may find the equivalent in the laboratory of the chemist, or in the actual cautery, is not the only matter we have to take account of. This chemical cauterization—so called polar—is only the first part of the therapeutical scene which gradually unfolds itself.

The electrical current—the power we wield, and the accompaniment of every vital manifestation, in its course through the tissues acts prolongedly and profoundly on every molecule, and thus causes ulterior changes in the tumour structure, which may well astonish both by their extent, safety and certainty.

I regret that I cannot do more on this occasion than roughly outline these questions of prime interest, and I turn at once to the clinical and purely practical results of my treatment.

With this powerful agent, the constant galvanic current of high intensity, of which I have pointed out the tractableness as well as its many advantages, in our hands, let us ask what can it do, and what ought we to be able to do with it, for the relief of the uterine fibroid?

Symptomatically, the fibroids may be divided into two great classes, those which are hæmorrhagic and those which are not so.

The positive pole is the express remedy for the cases attended with *hæmorrhage*, the negative pole when they are *not hæmorrhagic*. Each of the two poles, conveying the current, acts in the first instance locally on that part of the mucous membrane with which it is in contact—the negative pole as producing congestion, the positive pole as hæmostatic. Moreover, if they both in their secondary interstitial action induce a regression of the tumour, I believe that in this respect the greater potency belongs to the negative pole.

But beyond this the negative pole has a further faculty. If we make it enter by puncture into the substance of the fibroid deposit, it will more rapidly insure the diminution of the tumour, and what is truly remarkable is, that this negative pole, naturally congestioning, and little if at all hæmostatic, becomes by a sort of *contre-coup* markedly hæmostatic, and will at the end of a certain time, arrest even troublesome hæmorrhages. This staunching effect is due to the cutting off of the supplementary circulation, by the rapid atrophy brought about by the action of the negative current.

As a supplement to the rule which I have just formulated,—pole positive intra-uterine for the restraining of hæmorrhage, pole negative intra-uterine for tumours without hæmorrhage—comes the second indication for *galvano-punctures*. These punctures, as my experience increases, assume daily a more and more preponderating importance in my estimation.

The indications for galvano-puncture are *two-fold*; first, as a matter of *necessity* in consequence of uterine atresia, or where there is such displacement of the organ as to prevent any introduction of a sound; second, by *preference* when we see that we can advantageously combine punctures with intra-uterine cauterization, so as to expedite and make sure of the effects that, with the cauterizations only, we should tardily or perhaps imperfectly realize. We must therefore undertake the galvano-punctures *alone* whenever the case will fairly admit of them, or use them in other cases *as adjuncts* to the intra-uterine cauterizations previously tried.

The manipulations in the operation of galvano-puncture will always be more difficult and even dangerous in incautious hands. I cannot therefore too much insist upon a rigid observance of the directions and precautions I have elsewhere given at length. I can now only offer a very short summary of them.

1st. Absolute and regular *antiseptic* irrigation of the vagina, before and after each operation.

2nd. Use as the puncturing instrument a small steel trocar or needle, and let the punctures be *shallow*, that is, not deeper than from 1 to 2 centimetres.

3rd. Make the punctures on the most prominent part of the fibroid; whenever possible, in the posterior cul-de-sac.

4th. Make the punctures *without speculum*.