

milliamperes in five minutes, 480 grains would be decomposed in 11 minutes by 250 milliamperes; so that 16 applications of 11 minutes with a current strength of 250 milliamperes would decompose one pound weight of the tumor. Whether a tumor outside of the body would lose that amount of weight in that time and with that current strength is a different thing, for in the living body, as is well known, there are the thousands of open-mouthed lymphatics ready to seize upon and carry away the products of decomposition, while in the dead tumor this would not be the case and the products of electrolysis would not be removed, so that the weight might not appear very different.

But besides the electrolytic action of the continuous current we have the remarkable effect which it has on the trophic nerves, an action which would lead us to believe that the electric current is very similar to the vital current. These trophic nerves preside over the quantity of blood flowing in the vessels and the interchange of material in the tissues, as well as the absorption of foreign matter by the lymphatics. We know that it very much depends on the amount of nervous influence which the cells receive as to whether they shall keep up to the normal or degenerate. From the consideration of the history of the cases of fibroids which have come under my notice I have been led to consider that fibroids are primarily due to defective vitality of the uterus accompanied by slowing of the circulation. And the difference between fibroids and areolar hyperplasia is only one of greater or less localization. Thus if an impediment occurs to the circulation of the uterus, and we all know how great these impediments are in the modern women, with their tight corsets, their heavy draperies, their engorged livers their constipated bowels and their want of exercise, if any of these causes prevent the blood from returning from the uterus it is dammed back in the uterine veins and arteries from which a fibroplastic material exudes. If the absorbents are active this may be carried off; if not, it will remain, and after a time become organized into white fibrous tissue. This, small as it may be, is a foreign body, and still further obstructs the circulation so that it goes on increasing. At last it reaches a size sufficient for the uterus to take cognizance of, when, as is cus-

tomary with that organ, the intruder is promptly expelled either towards the peritoneum or towards the cavity of the uterus in the line of least resistance, dragging the vessels from which it was first exuded with it and from which it continues to receive its nourishment. In every case of fibroid which I have had under my care the patient had always been constipated and nearly all of them were of sedentary or intellectual occupations. Then again nearly all fibroids begin in the posterior half of the fundus where the circulation is the most difficult. Now the continuous current increases the nutrition of the part by hastening the circulation and interchange of tissue, in other words, acting as the best of alteratives, the exuded lymph goes back where it came from by virtue of the reversal of the defective vital action. Certainly *in the case of small fibroids the continuous current never fails to remove them.* This reminds me of an observation which I wish to record, that in many cases of fibroids there is a considerable œdema in the outside cellular tissue, into which the finger may be made to sink by a firm and continued pressure. Now when a fibroid begins to diminish under electric treatment, the first thing to go is the œdematous swelling, so that what seemed at first a single large tumor becomes resolved into a number of hard masses.

It is by the improvement in the circulation and consequently of the nutrition of the part that I would explain the marked relief of ovarian neuralgia by galvanism; for the best definition of neuralgia of which I am aware is that it is the cry of the nerves for better nourishment. But the relief of ovarian pain may be explained in another way. Those who operate for this condition tell us that they frequently find the ovaries and tubes compressed and bound down by a retracting plastic effusion; but owing to the stimulation of absorption these exudations are removed and the ovary is left free. The absorption of effusions by galvanic treatment has been observed by writers, not gynecologists, who have advocated this measure for the treatment of ascites.

In nearly every case of fibroid there is an atonic condition of the walls of the intestines which permits of their being distended with gas. A few applications of the galvanic current tone up the intestines, which expel their gaseous, liquid and even solid contents with a cor-