

## Retrospect of Gynæcology

### TREATMENT OF UTERINE FIBROIDS BY X-RAYS

GRAUSS AND TEMBKE—*Röntgentherapie*

**B**LOODLESS ovariectomy is the aim of *x*-rays in the treatment of uterine fibroma. The experimental stage is past, and definite results can now be promised in the treatment of uterine fibroma by *x*-rays. The introduction of the treatment came from theoretical reasoning. In 1903, it was shown that the spermatogenic cells of the testicles could be killed, or stunned by *x*-rays in suitable doses. Soon after this was discovered, Haberstaedter showed that the ovaries of rabbits atrophied under *x*-ray applications. In 1904, cases of fibroma uteri were treated with *x*-rays and good results were reported. In 1909, the treatment began to be used more extensively. Before that year it had remained in the hands of a few experimenters, of whom Foveau de Courmelles was the most energetic, and he was able to report success in fifty-three cases. In successful cases the hæmorrhage is arrested, the menstrual period is suppressed, and the fibroid cannot be felt, or is considerably reduced in volume. The *x*-ray treatment is in fact a bloodless ovariectomy which brings on an artificial menopause. It is probable that the internal secretion of the ovary is not destroyed. The method as now employed is the same wherever the treatment is in use, but techniques differ. Every operator endeavours to get a large dose of *x*-rays to reach the ovaries without causing injury to the skin. This is most successfully accomplished by the method used in the Frauenklinik at Freiburg in Germany.

By this method the *x*-rays are delivered through a delivery tube. The rays are directed obliquely on to the abdomen, the right and left parts of the abdomen being treated at separate sittings. Thus the skin of the median region of the abdomen is less irradiated, so that the rays will not injuriously affect the median line. Another portal of entry is per vaginam. The rays are made to pass through a vaginal speculum with the patient in the lithotomy position. It is stated that Zaretsky, by the latter method alone, succeeded in producing complete amenorrhœa. The sacro-sciatic notch is used as another portal of entry. For this purpose the patient lies on her side and the rays are directed obliquely upwards

in the line of the ovaries. The median line of the back is also rayed over the region of the ovaries.

Another method is to have the patient sitting upright, and to direct the rays horizontally through the back. In patients with loose skin over the abdomen, one can move the skin about so freely that two doses of *x*-rays can be given from the same point, while the rays fall on different skin during the application of each dose. In every application the skin focus distance is 20 cm., and 3 mm. of aluminium are used as a filter.

A dose of 10x is given at each portal of entry. The dose is measured on the skin by Kienböck's method. The hardest possible *x*-ray tube is used. Rays should have a hardness of at least 8 Benoist. This is, shortly, the technique employed, and there is a good reason for every detail.

The treatment has proved successful in myoma uteri and in climacteric flooding. The dose of *x*-rays required to produce an artificial menopause varies with the patient's age. The nearer she is to the climacteric period the smaller is the dose required.

Bordier gives the following indications and contra-indications for treatment by *x*-rays: (1) patients under thirty-nine years of age should not be treated by *x*-rays, (Gaus states that ammenorrhœa can be produced at any age); (2) interstitial fibroma is the most suited for *x*-rays; pedunculated fibroma should be treated surgically; (3) radiotherapy acts like a charm in cases with profuse menstrual hæmorrhage; (4) moderate sized tumours are most suitable; (5) hæmorrhages of the menopause are successfully terminated by *x*-ray treatment. One or two treatments are sufficient for the purpose.

Contra-indications are: calcified myoma, malignant, infected, suppurating tumours, suppurating salpingitis, and pelvic peritonitis.

The artificial menopause is accompanied by the usual disturbance of the natural menopause—hot flushes and nervous symptoms.

The technique reported in "Röntgentiefentherapie" far surpasses any method used in the past. The method which, literally translated, is called "intense raying with large doses," has given the best results. The authors report ten cases treated in this way. In these ten cases the average dose given was 1480 x. The smallest total dose was 693x, and the largest total dose was 2284x. The average time to produce amenorrhœa was one and a quarter months, the longest time required was two months, and the shortest one

month. The authors feel that they can produce these results "without regard to the age of the patient, or to the size of the tumour." They describe their technique so fully, that any *x*-ray expert should be able to reproduce their results. They report two hundred and five cases treated by various methods, but their final ten cases, treated by "intense raying with large doses," have given them the greatest satisfaction. My own experience is limited to the longer method whereby I succeeded in producing amenorrhœa, and causing the disappearance of a myoma after about five months of treatment. To be able to produce the same result in a month is certainly a great step in advance. Though this method will never surpass the surgical removal of a fibroid, yet there are cases in which the *x*-ray method has proved a great boon to patients suffering from fibroma uteri. Such treatment with massive doses should only be carried out by those who are expert at measuring large filtered doses of *x*-rays.

A. HOWARD PIRIE

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## Res Judicata

### THE RESULTS OF THE FRIEDMANN TREATMENT

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#### REPORT OF THE COMMITTEE OF THE CANADIAN ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS

**T**HE following report was read at a general meeting of the Canadian Medical Association in London, Ontario, June 25th, 1913:

In order to allay public excitement and to afford to the medical profession and people of Canada, an authoratitive statement regarding the value of Dr. Friedmann's treatment, the Canadian Association for the Prevention of Tuberculosis nominated a committee of five members to study and report upon the cases inoculated by Dr. Friedmann at Montreal, Ottawa, Toronto, and London. The committee has added to itself those physicians who have under observation the cases treated in these cities. The committee thus constituted begs to report that it has carefully studied the case