

EDITORIAL

THE HISTORY OF MYOMECTOMY AT THE MEDICAL SCHOOL OF UNIVERSITY OF SÃO PAULO

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The uterine leiomyoma is the most prevalent benign tumor of the female pelvis, which may cause symptoms mainly in the reproductive years. This tumor has been reported since antiquity. The curator from the Egyptology Department of the English Museum in London informed me that mummies presented calcified pelvic masses located through radiographic techniques which are suggestive of uterine leiomyoma.

The uterine leiomyoma was certainly known in the classical age of Greece. Hippocrates (460-375 B.C.) referred to such lesions as “uterine stones”, while Galen, in the second century of the Christian era, described the findings as “scleromas”.

Medieval texts refer to women who “used to expel bird eggs from their vaginas”, probably referring to the uterine leiomyoma in parturition. At that time, those women were often accused possession of devil spirits by the Inquisition.

The “fibroid” term was introduced by Rokitansky (1860) and Klob (1863), while Virchow, the famous German Pathologist, demonstrated that those tumors originated from the uterine smooth muscle. Thus, the term “myoma” became current in clinical use.

The first laparotomy consequent to myoma indication was performed in 1809, in Danville, USA. On that occasion, the surgeon Ephraim McDowell operated Mrs. Jane Todd Crawford, a cousin of President Abraham Lincoln. Mrs. Crawford aged 56 years, seemed to be pregnant of twins. This fact was not common at that time. She presented an increase of the abdominal volume and respiratory insufficiency; she was medicated with laxatives, enemas and phytotherapy, because of the abdominal distension. McDowell submitted her to a laparotomy in 25 min-

utes, and removed a large ovarian cyst with a complex content. After analysis, it was diagnosed as a pediculate leiomyoma.

More cases of laparotomy with uterine leiomyoma findings, were reported in England after Mc Dowell’s description. In fact, many cases of death were correlated with complications of leiomyoma surgery

The first successful myomectomy was performed by Amussat in 1840, after a clinical diagnosis of ovarian tumor because pelvic examination showed a pediculate and large uterine leiomyoma. The first scientific report of a uterus conserving myomectomy through the vagina appeared in 1845 in the American Journal of the Medical Science, accomplished by Washington Atlee, in Pennsylvania. This created euphoria among the surgeons of that time due to the possibility of uterus preservation in the removal of a uterine leiomyoma.

In 1898, Alexander Adam presented 11 cases of myomectomy through an abdominal route, in Liverpool. Because he described the procedure for more complex cases than any previously described cases (all of which had been pediculate leiomyomas), Adam’s report was received with hostility by his audience who believed that hysterectomy was the most simple and secure procedure.

Myomectomy was abandoned until 1922 when Victor Bonney, an English surgeon again evaluated the reports of Adam and others. They adapted conservative surgeries such as: leiomyoma remaking, cystectomies and preservation of the ovarian tissue. Boney invented the Clamp for myomectomy in an attempt to decrease intra-operative bleeding. In 1930, Bonney described 403 cases of myomectomy with low morbidity and mortality. At the same time in the USA, William J. Mayo also rescued the myomectomy technique, for fertility reason.

In 1940, Carlos R. Círio proposed a technique of the myometrium emptying, called myometrectomy. With this

technique, the author tried to remove the maximum possible amount of myometrium, because of the risk of small remaining myomatous nests or fibers diffusing hyperplasia through the region, possibly even through diffuse interstitial fibromatosis areas of the muscle tissue.

The lack of potent antibiotics at that time, the all too frequent problem of infections, the dead space in the myometrium, the consequent secondary hemorrhages and interstitial hematomas, all constituted arguments that limited and discouraged the practice of myometrectomy.

In our environment, Medina, an admirer of the technique created modifications with the objective of decreasing the complications which were feared until then, apart from seeking better results for the fertility of those patients. Years after the report of some cases in the International Congress of Gynecology and Obstetrics in 1954, Bozzini became interested in studying Medina's modified myometrectomy, which was the theme of his doctoral thesis in 1971.

The new technique consists in the resection of the myometrium by degrees, with curettage of the open endometrial cavity, suture by planes on the degrees created during the initial resection (myomuinous, myometrial and myoserous), then burying the endometrium. This is a menstrual-conservative procedure, with good results for the menstrual regularity and some cases of post surgery pregnancy.

The evolution of physiopathological knowledge, propitiated the development of new hormonal therapies such as the GnRH analogues (GnRH_a). The prospect of the use of these analogues in the volume reduction of uterine leiomyoma and the control of the symptoms associated to this tumor, led to the creation, in 1990, of the Uterine Leiomyoma Seccion of the Gynecology Division of Hospital das Clínicas of the School of Medicine of the University of São Paulo, which to this day has improved procedures and the conservative treatment techniques for these tumors.

The first outpatient protocol involved the use of Goserelin by women who presented large leiomyoma and severe anemia. The prescription consisted of 6 flasks of Goserelin per month followed by a reevaluation concerning surgical treatment (myomectomy).

The first observed benefit of this protocol was a decrease in the number of the myometrectomies. More conservation of the myometrium has meant less morbidity, more preservation of the uterine anatomy, and better results of fertility.

A very high number of serious cases is referred to the Hospital das Clínicas of the School of Medicine of the University of São Paulo. Patients who had an indication for the use of the GnRH_a in the pre-operative period of a myomectomy have become the subject Nilo Bozzini's doctoral Thesis, in 1993. The different responses of women with uterine leiomyoma of similar volumes and submitted to the GnRH_a (Goserelin) were evaluated.

Since the publication of that research, the care and scientific activities of the Uterine Leiomyoma Seccion of the Hospital das Clínicas of the School of Medicine of the University of São Paulo has been trying to be in the forefront of medical-scientific knowledge. Not only clinical protocols, but also research into cellular biology and gene analyses are in process.