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A Practical and Affordable Surgical Solution for a Troublesome Uterine Issue

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Description

We currently recognize uterine leiomyomas as a problem that affects thousands of women around the world. One in 5 women of reproductive age may suffer from uterine fibroids and up to 50% of women in their 50's have had fibroids at some point in their life time [1]. However uterine fibroids are benign fibromuscular tumors of the myometrium with low potential for malignancy, so many patients end up in a follow-up program that only offers to wait until their hormonal activity ends with menopause for symptoms related to with fibroids begin to disappear spontaneously. In another scenario are women with reproductive interest or with diagnosis of infertility who suffer from uterine leiomyomas, for whom it has been shown that fibroids that affect the endometrium or submucosal fibroids, classified as type 0, 1 and 2 by the International Federation of Gynecology and Obstetrics (FIGO), induce an intrauterine microenvironment clearly harmful to embryo implantation or may put them at risk of losing their pregnancies [2]. In this way, submucosal myomas are the ones that most frequently have an indication for surgical treatment, due to their potential to alter the reproductive outcome of patients and because they are recognized as one of the main causes of Abnormal Uterine Bleeding (AUB), a common gynecologic complaint that accounts for one-third of outpatient visits to gynecologists and more than 70% of all gynecologic consultations [3]. Ideally, their extraction should be with a rapid and safe technique that allows a complete extraction in a single surgical intervention and with a short recovery period, so that patients can continue with their lives.

Most of the conventional hysteroscopic myomectomy techniques focus on the extraction of the visible portion of the fibroid through the slicing technique with monopolar or bipolar energy. Other techniques require 2 surgical steps to achieve the complete fibroid extraction or the use of advanced technological devices, such as hysteroscopic morcellators, with limited access for most gynecological practices [4].

We proposed a simple device, the “Canula Bilúmen de Giraldo y Osorio” or double lumen intracervical cannula (Figure 1), that allows the novel use of some surgical instruments widely known by endoscopic gynecological surgeons, to achieve complete and non-fragmented extraction of submucosal fibroids up to 25 mm under direct visualization without having to use electrosurgery or hypo-osmolar solutions. With this device we intend to avoid the risks of hydro electrolytic complications due to the excessive absorption of hypo osmolar intrauterine irrigation solutions and also the collateral thermal damage associated with electrosurgery [5]. At this time, more clinical peer reviewed data is needed to support the efficacy and safety of myomectomy with hysteroscopic complete enucleation using the “Cánula Bilúmen de Giraldo y Osorio”, as well as studies that compare this surgical approach with other existing techniques for the hysteroscopic management of submucosal fibroids. Up to now it seems like a promising, safe, fast, low cost and efficient approach for surgical management of submucosal FIGO type 2 fibroids with difficult access through conventional hysteroscopic techniques.

Figure 1. Double lumen intracervical cannula.

This technique was developed as an option for many patients in our clinical practice, taken to assisted reproductive treatments despite having small type 2 submucosal uterine fibroids (<25 mm) that had been left in situ due to their difficult access, after considering that the risk of electrosurgical neighboring myometrial and/or endometrial damage associated with deep intramural component resection surpasses the resulting beneficial effects. Fear of remedy being worse than the disease have even made of type 2 fibroids with deep intramural component an exclusion criteria in some comparative studies of hysteroscopic myomectomy.

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We wanted to propose a technique focused on safety and rapid anatomical recovery, an essential characteristic for patients with obstetric interest or infertility, since nowadays it's very common to find many patients in our human reproduction clinics who aren't in a position to continue postponing their childbearing. The most recent data of our experience on the efficacy and safety of the use of our device and technique are still pending to be published. However, we can preliminary analysis and unpublished data report that we achieved a complete one step surgery in 93.5% of the patients and 64% of the patients with obstetric interest achieved a live birth. For whom the reason for consultation was AUB complete remission of symptoms was achieved during the first 3 months after surgery.

Thanks to Preston's generous reflection on access to procreative care through affordable hysteroscopic myomectomy [6]. We became aware that the "Cánula Bilúmen de Giraldo y Osorio" may go a little beyond its intended purpose because it carries the potential to close the gaps generated by inequity. In some developing countries, many people are at a disadvantage due to difficult access to biomedical technology required for optimal health care. For this reason, practical and affordable solutions are required for health problems that affect a large part of the population and in this sense; it's of great help to optimize available resources. This is precisely what our reusable device can achieve. It promises to be a low-cost tool to carry out a surgical technique that requires little training, uses the surgical instruments that are available in most endoscopic surgery services and with which most gynecologic surgeons are familiar.

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