

# Laparoscopic myomectomy in Sri Lankan public health care system: The need and challenges

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## Introduction

Uterine fibroids are the most common benign tumors which cause heavy menstrual bleeding, pelvic pain and even reproductive dysfunctions<sup>1</sup>. Negative impact on quality of life and burden of disease by fibroids is comparatively higher among Asians than in Caucasian women<sup>2</sup>. In number of studies conducted in South Asian countries, the prevalence of clinical presentation with uterine fibroids range from 22% to 46%<sup>3-5</sup>. Uterine fibroid is a major cause of gynaecological presentation in Sri Lanka and it has an effect on quality of life of women<sup>6</sup>.

Hysterectomy and myomectomy are the most effective treatment options of uterine fibroids while there are no clinically proven, cost effective medical treatment<sup>1,5,7</sup>. Though hysterectomy is the definitive treatment for uterine fibroids, myomectomy still remains as the treatment of choice in women who desire a pregnancy and who wish to preserve their femininity which is culturally valued in Asian countries like Sri Lanka<sup>5,6,8,9</sup>. Myomectomy can be performed as an open surgery or laparoscopic procedure which has advantages such as minimal pain and hemorrhage, shorter

hospitals stay and lower risk of uterine rupture in future pregnancies<sup>10</sup>. Expedited recovery, early return to normal activity and employment are of great benefit for patients who undergo laparoscopic procedures<sup>11,12</sup>.

Despite the benefits, laparoscopic myomectomy has been sporadic and minimal in Sri Lanka and there are no data available on the practice in public health care system. Two studies conducted in India have suggested that lack of experience on advance laparoscopy and less willingness to practice technically complicated procedures are the apparent reasons for less adaptation of laparoscopic myomectomy<sup>13,14</sup>. The hierarchical nature in local health care institutes act as a barrier for young clinicians to gain skills and experience on new technology including laparoscopy<sup>14</sup>.

Thus, the need of incorporating laparoscopic myomectomy in to routine clinical practice as surgical treatment for fibroid should be further emphasized. The barriers for this task and challenges faced by gynaecologists should be discussed and addressed with a view of improving health system contribution for women's health.

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## Methodology

With a view of understanding the need of laparoscopic myomectomy as felt by clinicians together with the barriers and challenges, a cross sectional study was conducted among board certified specialists in Obstetrics and Gynaecology in Sri Lanka. Assessing their attitudes, experience, practices and ability and barriers of performing laparoscopic myomectomy were seen as the most important factors. A 16-item online survey was created using a web-based platform (Google, LLC, Mountain View, CA). This questionnaire consists of questions on socio-demographic factors, work preferences, training on laparoscopy surgery and the source, attitudes and views related to laparoscopic myomectomy, whether using laparoscopic myomectomy as a routine procedure and reasons if not.

The online questionnaire was distributed among board certified Obstetricians and Gynaecologists with a brief explanation about the study. The study was approved by the Ethics Review Committee of the Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka (ERC/2019/35). Participant's responses were analyzed using descriptive statistics.

## Results

Thirty-four consultant gynaecologists with average working experience of 10 years responded to the questionnaire. Majority of them (82.4%) was in the age range of 35-50 years. Almost all (97.1%) respondents work in the public sector but also work in private practice on part-time basis. Four respondents work only in public sector and one work only in private sector.

Majority of the participants have performed myomectomy as an open surgery (97.1%) and 82.3% of them have performed at least 50 myomectomies. Comparatively, only 17.3% have performed more than 50 laparoscopic myomectomy surgeries in their practice.

Although the proportion using laparoscopic myomectomy as a procedure is comparatively low, ninety seven percent of respondents suggested that laparoscopic myomectomy should be integrated into routine practice. With this higher intention, the respondents highlighted the difficulties they face in adopting laparoscopic myomectomy. Lack of essential equipment such as morcellator (59.1%), limited theater time (27.3%) and lack of a trained staff (22.7%) were seen

as barriers. Responses from gynaecologists who perform laparoscopic myomectomy revealed that open morcellation was the most commonly used (59.1%) fibroid retrieval method followed by colpotomy (31.8%). Only a few claimed to use Endo-bag morcellation method (9.1%) in their regular practice. It was also reported that half of the respondents use Vasopressin injection (71.4%) to reduce blood loss, but use of GNRH analogues is not a common practice. However, thirty six percent of respondents claimed that they are comfortable with traditional open myomectomy surgeries than laparoscopy.

## Discussion

The findings from the survey revealed that almost all participated gynaecologists believed that laparoscopic myomectomy should be integrated in to their routine surgical practice. Nevertheless, majority of respondents currently perform open myomectomy and only a small proportion perform laparoscopic myomectomy. This gap of perceived best practice and actual practice was attributed to lack of resources and training by respondents. These findings are resembled to the previous study of Silva, et al<sup>15</sup> which reported that limitation of resources, absence of trainers and lack of expertise as barriers to perform laparoscopic hysterectomies in Sri Lanka.

Performing successful laparoscopic surgery requires two major components, laparoscopy stack system and well-trained staff. Many gynaecology units in Sri Lanka are not adequately equipped with laparoscopy instruments as identified by the respondents to online survey. Similarly, lack of well-trained staff was also seen as a limitation. These findings are important as need identification and should be considered in the policy levels.

In addition to the limitations of logistics and resources, previous studies have shown that long learning curve and the need of complicated surgical skills related to laparoscopic myomectomy can be seen as main reasons for less prevalence of laparoscopic myomectomy in any country<sup>16,17</sup>. Even with all the laparoscopy facilities, switching open surgery to laparoscopy takes time and prone for complications during the transition.

According to our study, 84% of respondents have performed more than 50 open myomectomies and only 17% have performed more than 50 laparoscopic myomectomy procedures during their practice, in

average 10 years. Considering the situation in other countries, vast majority (74%) of gynaecologists in United Kingdom still use open myomectomy as the common procedure and only 32% perform laparoscopic myomectomy<sup>18</sup>. Twenty four percent of gynaecologists in Canada perform laparoscopic myomectomy as a routine procedure and 57% of them do so only for 10% of their myomectomy surgeries and only 12% of them perform more than 50% of their myomectomies as a laparoscopic procedure<sup>19</sup>. These studies also indicate that open surgery is still the main procedure in many settings but laparoscopic myomectomy is being used considerably. This situation is not directly comparable with Sri Lanka as there are no data on total number of myomectomies conducted; both open and laparoscopic procedures in our settings. Based on unpublished observations of authors, only a small proportion of myomectomies are conducted using laparoscopic procedures and it seems that Sri Lanka need to put further efforts to promote less invasive laparoscopic myomectomy as a common procedure in the public healthcare system.

Despite the potential benefits from laparoscopic myomectomy, there is no systematic mechanism to promote laparoscopic surgeries in the Sri Lankan health care system. Training programs and capacity building has been happening out of personal interest of university academics and with the support of College of Obstetricians and Gynaecologists of Sri Lanka. In long term, planning of dedicated laparoscopy centers for staff training and service would help to promote laparoscopic surgeries in Sri Lanka.

Giving some hope for the future of laparoscopy surgeries, Postgraduate Institute of Medicine (PGIM) of Sri Lanka amended its prospectus in year 2017 by adding endoscopy training for new trainees to complete before their MD with board certification in obstetrics and gynaecology. Before this, there was no documented endoscopy training for postgraduate trainees although those who are interested in endoscopy have undergone various training courses overseas. Though now the policy of endoscopic requirement is included in the prospectus, provision of such training is questionable under the current set up of Sri Lankan endoscopy training centers (<https://pgim.cmb.ac.lk/index.php/courses/>).

In view of promoting laparoscopic myomectomy in Sri Lanka, few key decisions are needed to take in policy levels such as investment for laparoscopic

facilities at least in major government hospitals, easy accesses to laparoscopy training to all the staff levels and mechanism to educate the general public about the benefits of laparoscopic approach.

## Conclusions

Laparoscopic myomectomy is not a well-established practice in Sri Lankan public health care system although it is well-accepted as a treatment option for uterine fibroids. Limitation of physical and human resources, lack of trained staff and capacity within the existing facilities and the poor knowledge of the general public of minimal access surgeries including laparoscopic myomectomy can be identified as major barriers in promoting the procedures as a common practice. Thus, provision of facilities, training of staff and shifting attitudes related to laparoscopic myomectomy aiming to promote this surgical practice in Sri Lanka is important to improve gynaecological care in public health care system.

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