



## Case Report

## No more abdominal hysterectomy for myomata using a new minimally-invasive technique

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## ABSTRACT

To perform hysterectomy in uterus myomatosus, there are several surgical techniques. For a uterine weight of >1000 g, after a caesarean section and in nullipara per vaginam, the most common surgical technique for hysterectomy in patients is hysterectomy per laparotomiam. A new endoscopical technique developed to treat such patients and to avoid laparotomy is described in this case report: the laparoscopic combined hysterectomy (LACH) using the change-over technique. Adhesiolysis, preparation of the ureters and the bladder and morcellation of the uterus of 2480 g were performed minimally-invasive in two steps, from one side of the patient with a change-over of the OP-team to the other side of the patient. The cervix was removed per vaginam.

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## 1. Case

A 47-year old woman presented with a tumefaction in the pelvis that cranially extended up to the costal arch. She suffered from chronic vaginal bleeding and pain. In her further medical history she had two caesarean sections and had not given birth through the vagina. The clinical suspected diagnosis was sonographically endorsed with the finding of a large uterus myomatosus, estimated weight more than 1000 g. The patient agreed to undergo surgical treatment and wished to have a total hysterectomy.

## 2. Management

To perform hysterectomy in uterus myomatosus, there are several surgical techniques: vaginal hysterectomy, abdominal hysterectomy, laparoscopic assisted vaginal hysterectomy, laparoscopic supracervical hysterectomy and total laparoscopic hysterectomy, according to the wishes of the patient, her parity and the clinical findings e.g. adhesions.<sup>1</sup>

With a uterine weight of >1000 g, after a caesarean section and as a nullipara per vaginam, the patient was classified as a difficult minimal-invasive case regarding surgical intervention. The most

common surgical technique for hysterectomy in those patients is hysterectomy per laparotomiam.

## 3. Technique

A new endoscopical technique developed to treat such patients was offered as an alternative method: the laparoscopic combined hysterectomy (LACH) using the change-over technique. Adhesiolysis, preparation of the ureters and the bladder are performed minimally-invasive in two steps, from one side of the patient with a change-over of the OP-team to the other side of the patient (Figs. 1 and 2). The cervix is removed per vaginam, which is at that time easily possible, also in nulliparae. After mutual consent, the patient underwent this new endoscopical combined hysterectomy method.

## 4. Outcome

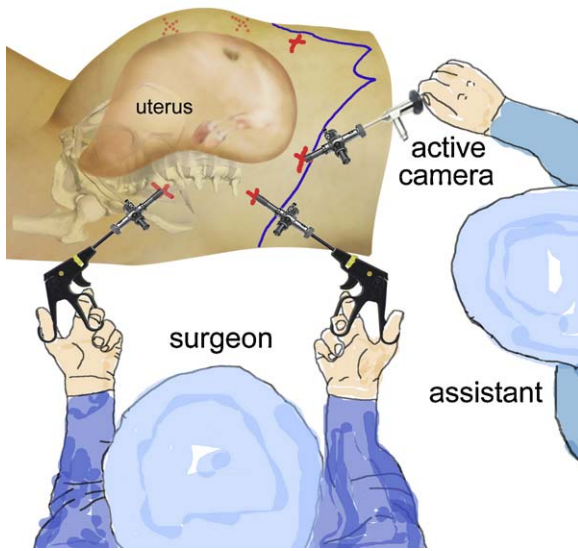
The hysterectomy was completed in 175 min, including 15 min for the removal of the cervix per vaginam; the weight of the morcellated uterus was 2480 g and the blood loss 100 ml. The patient was discharged from the hospital in good health on the third day, post-intervention.

The laparoscopic combined hysterectomy with the change-over technique allows (1) the removal of uteri of almost any size without laparotomy, (2) after sectionem caesaream a sufficient preparation of the urinary bladder and (3) in nullipara the removal of the cervix per vaginam, minimizing the risk of injury to the ureters.

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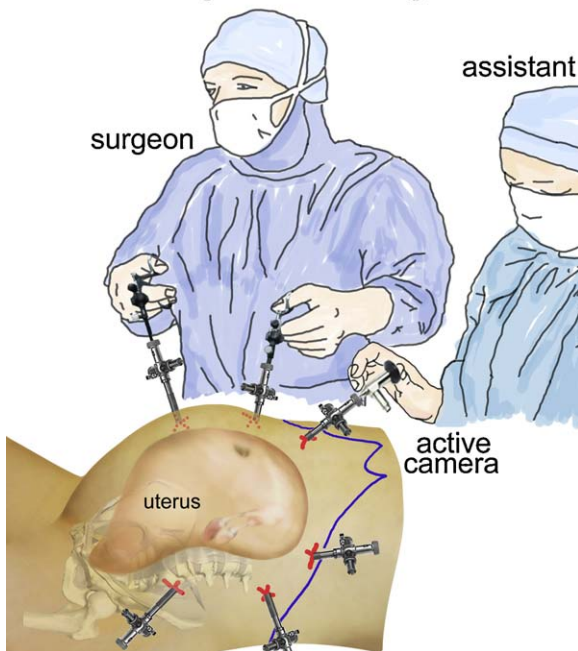
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### start from the left side



**Fig. 1.** Endoscopic instruments in situ and the endoscope in a lateral position. Surgeon and assistant start the operation from the left side of the patient. Preparation of the parametrium, uterine artery, ureters, bladder and adnex.

### change-over to the right side



**Fig. 2.** Change-over of the operational team to the other side of the patient. Preparation of the parametrium, uterine artery etc. and dissection of the corpus uteri. Then morcellation of the uterus and removal of the cervix per vaginam.

## 5. Conclusion

The minimally-invasive hysterectomy has already proven to be the more effective surgical technique in larger studies.<sup>2,3</sup> The LACH seems to be a feasible alternative to the laparotomy in the described group and promising regarding the possibility to extend minimal-invasive procedures. To evaluate this new minimally-invasive method, a prospective-randomized series of 100 LACH-patients has nearly been finished and will be published soon.

## Conflict of interest statement

There are no conflicts of interest.

## Funding

None.

## Ethical approval statement

The study has been approved by the local ethics committee. The patient has given informed written consent.

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