



Comparative Study Blood Loss in Laparoscopic-hysterectomy By Uterine-artery Ligation With Different Techniques

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Objective:

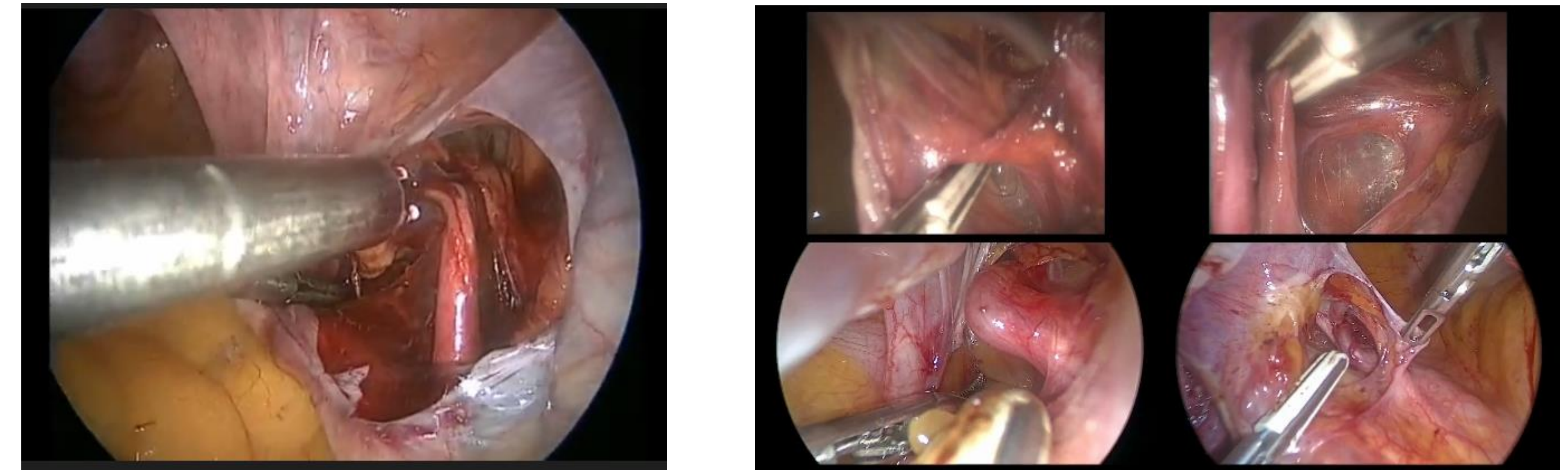
To determine whether Bilateral Uterine Artery Ligation (**BUAL**) during Total Laparoscopic Hysterectomy (**TLH**) would impact the outcomes (blood loss, operating time, complications and discharge time) compared to conventional total laparoscopic hysterectomy.

Design:

A Double-blinded Randomized Controlled Trial conducted at the Department of Obstetric and Gynaecology, Kasr Al Aini Medical School, Cairo University between 2019 and 2021.

Method:

Sixty women aged from 35 to 60 years were recruited for consultation for hysterectomy. All had presented with menometrorrhagia not responding to medical treatment due to uterine pathology like adenomyosis, fibroids and endometrial hyperplasia). Exclusions included medical conditions precluding proper ventilation during general anesthesia, suspected excessive adhesions, endometrial carcinoma and uterine size larger than 20 weeks. Thirty women were allocated to conventional TLH with ligation of uterine artery at the cervical level arm and the other 30 were allocated to TLH with BUAL at its origin from the internal iliac arm. The uterine artery was identified at the bifurcation from the hypogastric artery. The uterine arteries were ligated at the cervical level using titanium clips or coagulated using a bipolar tissue sealer. Access to the uterine artery via one of three approaches: anterior, pelvic or via a lateral approach. The total blood loss was calculated from the suction apparatus. No irrigation was used during the procedure until the calculation of the total blood loss. The duration of the procedure was recorded, any postoperative complications during the first 72 hours were documented.



Steps for dissection and ligation of uterine artery from its origin.

Results:

The study groups were matched regarding age, Body Mass Index (BMI), previous surgical history and indications for hysterectomy. Abnormal Uterine Bleeding was the most common operative indication in both groups followed by myomas and adenomyosis. BUAL had significantly lower blood loss (ml) when compared with conventional TLH ($p=.007$). The operative time (minutes) was statistically not-significant between both groups ($p=.061$).

Conclusion:

Securing the uterine arteries bilaterally at the origin prior to TLH reduced the blood loss, surgical duration as well as the complications during and after surgery. As the learning curve of the surgeon increases, the duration of the procedure shortened considerably. Securing the uterine arteries bilaterally at the origin prior to TLH reduced the blood loss, surgical duration as well as the complications during and after surgery. As the learning curve of the surgeon increases, the duration of the procedure shortened

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