Laparoscopic transient uterine artery occlusion by a slip knot in complex myomectomy

Gürkan Arıkan
A novel slip knot technique for transient uterine artery occlusion before laparoscopic myomectomy in patients with large myomas.

Aim

To determine whether performing transient occlusion of uterine arteries before laparoscopic myomectomy in patients with large myomas can reduce the intraoperative complications.

Subjects and Methods:

A simple slip knot technique was evaluated for transient occlusion of uterine artery before laparoscopic myomectomy.
Retrospective case-control study

20 laparoscopic myomectomies

10 women underwent laparoscopic myomectomy with transient occlusion of uterine artery (TOUA)

10 control patients underwent laparoscopic myomectomy alone

patients with myomas > 10 cm. in diameter

between March 2007 and January 2014

Surgical outcomes

nerve and vascular injuries

need of blood transfusions

conversion to laparotomy
## Results

No cases of nerve or vascular injury in both groups

The mean time of TOUA  
- 10 min. for unilateral intervention  
- 20 min. for bilateral intervention

<table>
<thead>
<tr>
<th>Blood transfusions</th>
<th>in the TOUA group</th>
<th>n=0</th>
<th>in the controls</th>
<th>n=3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion to laparotomy</td>
<td>in the TOUA group</td>
<td>n=0</td>
<td>in the controls</td>
<td>n=2</td>
</tr>
</tbody>
</table>
Dissection of retroperitoneal area

- Lateral ligament
- Uterine artery
- Ureter
Dissection of uterine artery
ligation of uterine artery by a slip knot
Slip knot
Removal of the knot after closure of the uterus incision
Re-perfusion of the uterus
Conclusions:
The slip technique can be performed with standard laparoscopic instruments and material.

It is feasible for transient occlusion of uterine arteries before myomectomy.

TOUA seems to facilitate the laparoscopy and to reduce the rate of conversion to laparotomy in patients with large myomas.
THANK YOU!