Endometriosis Cyst, Ethanol Sclerosis After Ultrasound Guided Aspiration vs Conventional Surgery

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To compare the **EFFECTIVENESS** of ethanol **SCLEROSIS** after ultrasound (US) guided aspiration in the treatment of ovarian endometrioma cyst versus conventional **SURGERY**.

**Objective**

“Gold Standard” → Surgery

Our Proposal → Sclerosis
What we know...

Laparoscopic/Laparotomic cystectomy:
- 10-30% recurrence 2-5 years
- It is associated with a decrease in fertility rates

*Laparoscopic stripping of endometriomas as negatively affects ovarian follicular reserve even if performed by experienced surgeons


There is a decrease of AMH after surgery, with negative impact in ovarian reserve.

The Impact of Excision of Ovarian Endometrioma on Ovarian Reserve: A Systematic Review and Meta-Analysis

Francesca Raffi, Mostafa Metwally, and Saad Amer
What we know...

Simple Punction:
- 53-97.6% recurrence
- 1.3% Infection risc

Punction + Sclerosis:
- Recurrences 0-15%
- No effects or even improvement in fertility
Experience in Our Centre

The recurrence rate after sclerosis was 12%. The mean length of follow-up was 17 (SD 9.9) months. Although no major procedure-related complications were recorded, minor complications included three cases of low abdominal pain during the procedure (10.7%) and two cases of abdominal ethanol extravasation (7.1%).

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Let's Go Back to Our Study
Material and Method:

Prospective cohort of 30 ovarian endometrioma undergoing Sclerosis

VS

Conservative surgery according to the literature.
Women <50 y/o,
- Ovarian endometrioma cyst suspicion by US according to IOTA criteria
- Diameter 30-100 mm
- Endometriosis stages I-II according to the ASRM
  - Ca125 > 200 UI/mL
  - HE4 > 70pM
Data recorded:

- Age
- Recurrence
- Complications
- Endometrioma Size
- Hospital Stay

Note: Patients had a 2 years follow up.
Our Cohort:

Our Cohort Consisted of:

- 30 Patients
- Median age of 37 years
- Median Size of the endometrioma: 62,5 mm
Our Procedure:
Our Results:

Number Of Patients: 30

Total Complications: 1

Major Complications: 0

Hospital Stay: 0 Days

Recurrence: 10%

1 case showed abdominal pain.
Other Studies:

<table>
<thead>
<tr>
<th>Study</th>
<th>Year Range</th>
<th>Study Design</th>
<th>Total Patients</th>
<th>Recurrences</th>
<th>Procedure</th>
<th>Follow Up</th>
<th>Recurrence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liu et al</td>
<td>June 2007</td>
<td>Prospective Study</td>
<td>710</td>
<td>229</td>
<td>Conservative Surgery</td>
<td></td>
<td>30%</td>
</tr>
</tbody>
</table>

In most of studies showing laparoscopic results, the recurrence rate rounds 30%
# Recurrence Comparison:

<table>
<thead>
<tr>
<th>Study</th>
<th>Treatment</th>
<th>Nº of Patients</th>
<th>Recurrences</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bellvitge</td>
<td>US Guided Sclerosis</td>
<td>30</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Koga</td>
<td>Surgery</td>
<td>224</td>
<td>68</td>
<td>32%</td>
</tr>
<tr>
<td>Liu</td>
<td>Surgery</td>
<td>710</td>
<td>229</td>
<td>30%</td>
</tr>
<tr>
<td>Bussacca</td>
<td>Surgery</td>
<td>366</td>
<td>88</td>
<td>24%</td>
</tr>
<tr>
<td>Porpora</td>
<td>Surgery</td>
<td>166</td>
<td>16</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Nº Patients</th>
<th>Recurrences</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sclerosis</td>
<td>30</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Surgery</td>
<td>1300</td>
<td>385</td>
<td>30%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fisher test</th>
<th>p Value</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>0.02331</td>
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</tbody>
</table>

Statistically Significant
Other Studies:

- Surgery
  - Major complications
  - Minor complications
- Sclerosis
  - Low complication rate

Advanced laparoscopic surgery (hysterectomy, myomectomy, bladder neck suspension).
Conclusions:

Eco-Guided puncture and ethanol sclerosis seems to be a safe procedure.

It seems to be at least as effective as conventional surgery in the treatment of ovarian endometrioma.
What will come next

Does it lowers the costs when compared to conventional surgery?

Can Punction-Sclerosis improve fertility rates?

Is it transposable to other centers?
Thank You