FERTILITY PRESERVATION IN ENDOMETRIOSIS PATIENTS

Is it feasible from a public health perspective?

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OOCYTE CRYOPRESERVATION. A REALITY

Safe technique.

Well established indications.
- Medical: malignancies.
- Social: moderhood deferred.
- Technical:
  - Ovum banks
  - Storage of sparing gametes.
  - ...

Emerging indications.
- Risk of premature ovarian failure...
- ENDOMETRIOSIS!
RATIONALE FOR FERTILITY PRESERVATION IN ENDOMETRIOSIS

Oocyte vitrification as an efficient option for elective fertility preservation

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ENDOMETRIOSIS AND FERTILITY

SURGICAL TREATMENT

✓ Cystectomy is the standard technique (*ESHRE guideline 2014: Management of women with endometriosis*)

- Loss of follicles in the cyst wall.
- Decreased AMH after surgical excision.
- Halved ovarian response in COH in IVF cycles.
- Risk of POI and earlier menopause after bilateral endometrioma excision.
ENDOMETRIOSIS AND FERTILITY

ENDOMETRIOSIS

✓ Endometrioma adversely affects ovarian reserve.

  • Decreased AMH with bilateral endometriomas.
  • Decreased AFC.
  • Lower response to controlled ovarian stimulation
Fertility preservation in women with endometriosis: for all, for some, for none?

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FERTILITY PRESERVATION PROTOCOL FOR ENDOMETRIOSIS PATIENTS AT HCSC.

INCLUSION CRITERIA

- Age under 35.
- AFC ≥ 6; FSH < 10, AMH > 1
- Bilateral endometriomas.
- Previous endometrioma excision and contralateral recurrence.
- Previous bilateral excision and new recurrence.
## Patients Basal Features

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>n</th>
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<tbody>
<tr>
<td>No. of subjects</td>
<td>9</td>
</tr>
<tr>
<td>Age, y</td>
<td>30.96</td>
</tr>
<tr>
<td>BMI, kg/m²</td>
<td>23</td>
</tr>
<tr>
<td>AFC</td>
<td>5.33</td>
</tr>
<tr>
<td>FSH, IU</td>
<td>6</td>
</tr>
<tr>
<td>No. of endometriomas</td>
<td>2.37</td>
</tr>
<tr>
<td>Size of 1st endometrioma, mm</td>
<td>20.71</td>
</tr>
<tr>
<td>Size of 2nd endometrioma, mm</td>
<td>17.7</td>
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</tbody>
</table>

Patients basal features. BMI: body mass index; AFC: antral follicle count. Note that AMH is not included since it available in all patients.
FERTILITY PRESERVATION IN ENDOMETRIOSIS. RESULTS AT HCSC. 2013-2015

<table>
<thead>
<tr>
<th>VARIABLE</th>
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<tbody>
<tr>
<td>No.of cycles</td>
<td>11</td>
</tr>
<tr>
<td>rFSH dose ,IU, mean</td>
<td>1990</td>
</tr>
<tr>
<td>No of oocytes obtained, mean</td>
<td>8,08</td>
</tr>
<tr>
<td>No of MII oocytes vitrified, mean</td>
<td>7,30</td>
</tr>
</tbody>
</table>

Antagonist multiple dose protocol was used following the usual criteria, employing recombinant FSH (rFHS, Gonal-F, Merck-Serono) and Cetrorelix (Cetrotide, Merck-Serono ) as GnRH antagonist in all cases.

Oocyte retrieval under sedation was performed after trigger shot with GnRH agonist (0.2 mg of triptorelin, Decapeptyl, Ipsen Pharma)

One cycle was cancelled due to no response.
KEY POINTS

• Women with endometriosis should be informed about their specific risk of ovarian tissue damage and subsequent impairment in fertility.

• We consider there is a need for a fertility preservation protocol in endometriosis patients in the National Public Health.

• A cautious selection of the patients is advisable to ensure efficiency.

• Further evidence is needed to increase knowledge into fertility preservation results in endometriosis patients.

• A cost/effectiveness research would be useful to evaluate the feasibility of this indication in the Public Health Systems.