Introduction

Over the last decade, there has been a trend in surgery to move from a traditional operating theatre with general anesthesia to an outpatient setting. Procedural sedation and analgesia with propofol (PSA) can be used for a wide variety of interventional procedures in multiple settings outside the operation room. Sparse data regarding safety and effectiveness of PSA with propofol for the use in gynaecologic procedures have been published, and a systematic review on this subject is lacking.

Objective

- To identify which gynaecologic procedures are eligible to be performed under PSA
- To describe safety and effectiveness of these procedures in this setting

Methods

Systematic review of the literature in Pubmed (MEDLINE), Embase and Cochrane Library (fig. 1)

All articles reporting on clinical outcome parameters of gynaecologic procedures under PSA with propofol were included.

Exclusion criteria:

- Use of sedation without propofol
- Studies analyzing the effect of differences in medication for procedural sedation and analgesia

Main outcome parameters:

- completeness of procedure
- intraoperative complication rate

Results

Six studies were included and divided into three categories: hysteroscopic, vaginal and laparoscopic surgery. The number of complete procedures was high and intraoperative complication rate was low (table 1).

Table 1. Completeness and safety of gynaecologic surgery under PSA with propofol

<table>
<thead>
<tr>
<th>Type of surgery</th>
<th>N studies</th>
<th>N women</th>
<th>Complete procedure rate (%)</th>
<th>Intraoperative complication rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hysteroscopic surgery / endometrial ablation</td>
<td>3</td>
<td>189</td>
<td>96.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Vaginal reconstructive surgery</td>
<td>2</td>
<td>97</td>
<td>97.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Laparoscopic surgery: laparoscopic sterilization</td>
<td>1</td>
<td>5</td>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>

Conclusion

- Certain gynaecologic procedures might be safely and effectively performed under PSA
- Sample sizes of the included studies are small
- Larger studies are needed to further evaluate (cost) effectiveness of these procedures compared to gynaecological surgery in a conventional setting.

References

Centini et al. 2015. JMG 22: 193-198
Rosati et al. 2015. JSLS 19(3): 1-6

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