Set of slides for the Factsheet Anesthesia

Sex and gender differences in anesthesia and perioperative medicine

Author(s): Prof. Dr. med. Martin Schläpfer
Institutes of Anesthesiology and Physiology
University Hospital and University of Zurich
Propofol

Most common hypnotic for anesthesia induction and anesthesia maintenance
Propofol - Shorter emergence time in women

Clinical Science | May 1999

Women Emerge from General Anesthesia with Propofol/Alfentanil/Nitrous Oxide Faster than Men

Tong J, Gan MB, FRCA, FFARCSI; Peter S Glass, MB, FFA(SA); Jeff Sigl, PhD; Peter Sebel, MB, BS, PhD, FFARCSI; Fredrick Payne, MD; Carl Rosow, MD, PhD; Patricia Embree, CRNA

† Author and Article Information

<table>
<thead>
<tr>
<th></th>
<th>Male (n = 96)</th>
<th>Female (n = 178)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intraoperative average BIS*</td>
<td>47 ± 9</td>
<td>47 ± 8</td>
<td>0.84</td>
</tr>
<tr>
<td>Prerecovery average BIS†</td>
<td>51 ± 10</td>
<td>53 ± 12</td>
<td>0.22</td>
</tr>
<tr>
<td>Time interval: propofol off to open eyes (min)</td>
<td>11.2 ± 8.6</td>
<td>7.0 ± 5.2</td>
<td>0.0001</td>
</tr>
<tr>
<td>Time interval: propofol off to responds to verbal command (min)</td>
<td>11.7 ± 8.6</td>
<td>8.1 ± 6.2</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Data are mean ± SD.
* Intraoperative average BIS = average value from start of procedure to 15 min before discontinuation of propofol.
† Prerecovery average BIS = average BIS value over 15 min before discontinuation of propofol.
‡ Median (90th percentile).
§ Statistical results from the Mann Whitney test.
Propofol – faster degradation in women

Why do women wake up faster than men from propofol anaesthesia?

S. C. Hoymork, J. Raeder


Published: 16 September 2005  Article history

Set of slides for the Factsheet Anesthesia
Postoperative morphine application

Morphine is the most common opioid used in the postoperative phase.
Do sex differences exist in opioid analgesia? A systematic review and meta-analysis of human experimental and clinical studies

Nieters, Marieke; Dahan, Albert; Kest, Benjamin; Zacny, James; Stöppler, Theo; Aarts, Leon; Sartore, Elise

Author information ©

Paix: October 2010 - Volume 151 - Issue 1 - p 61-68
doi: 10.1016/j.jpain.2010.06.012

Set of slides for the Factsheet Anesthesia
... but pain control with morphine appears to be more complex...
Postoperative nausea and vomiting (PONV)

One of the most common problems of general anesthesia. The most undesired complication according to surveys among postoperative patients.
The most common complication after general anesthesia: postoperative nausea and vomiting (PONV)

The most important risk factor for the occurrence of PONV is «female sex».

Gan TJ et al. Anesthesia & Analgesia 2020

Figure 1. PONV risk factor summary. Intraoperative and postoperative risk factors of PONV in adults; the size of each segment is proportional to the odds ratios of PONV associated with each risk factor. PONV indicates postoperative nausea and vomiting. Figure reused with permission from the American Society for Enhanced Recovery. For permission requests, contact info@asernh.org.