GuardianCPV Supraglottic Device Shows Promise in Women

The GuardianCPV was 100% successful with higher leak pressures than the LMA Supreme.

The GuardianCPV is a new silicone-based, single-use supraglottic device with a gastric drainage port and an integrated cuff pilot valve (CPV) that visually indicates changes in cuff pressure. To compare seal pressures to those achieved with the LMA Supreme, researchers randomized 120 healthy nonobese women without known difficult airways who were undergoing elective surgery to insertion of either device for airway management. Oropharyngeal leak pressures and fiber-optic assessment of position were recorded at cuff volumes of 0, 10, 20, 30, and 40 mL. Three experienced anesthetists performed 20 insertions with each device.

Patient characteristics were similar between groups. All device insertions were successful. The GuardianCPV had significantly higher mean leak pressures (31 vs. 27 cmH₂O) and lower intracuff pressures than the LMA Supreme (68 vs. 88 cmH₂O). There were no differences between groups in ventilation success rates, fiber-optic assessment of positioning, drain tube positions, gastric tube insertion success rates, blood staining, or airway morbidity (odynophagia, dysphonia or dysphagia).

Comment: In this study, which was partially funded by the makers of the GuardianCPV, the device performed as well as or better than the LMA Supreme. The lower cuff pressure and higher leak pressure are desirable, but whether this translates to superiority in larger populations, including men, remains to be seen.

— Cheryl Lynn Horton, MD, and Ron M. Walls, MD, FRCPC, FAAEM

Published in Journal Watch Emergency Medicine April 26, 2013

Citation(s):

Tiefenthaler W et al. A randomised, non-crossover study of the GuardianCPV™ Laryngeal Mask versus the LMA Supreme™ in paralysed, anaesthetised female patients. Anaesthesia 2013 Apr 1; [e-pub ahead of print]. (http://dx.doi.org/10.1111/anae.12178)