

ESA Prize 2015 for Professor Marcus Schultz



Lübeck/Berlin – Professor Marcus Schultz from the Academic Medical Center at the University of Amsterdam (AMC) is the recipient of this year's "ESA Prize in Anaesthesia and Intensive Care Medicine". The European Society of Anaesthesia (ESA) is bestowing the award for his paper "High versus low positive end-expiratory pressure during general anaesthesia for open abdominal surgery"¹ which comes with 10,000 euros in prize money. This has been donated by Dräger, a leading international company in the fields of medical and safety technology.

Professor Wolfgang Buhre, chairman of the scientific committee at the ESA, awarded the prize during the Euroanaesthesia 2015 together with Michael Wilkening, head of the the customer area Operating Room in the Hospital segment at Dräger.

The trial by Professor Schultz examined the uncertain role of positive endexpiratory pressure (PEEP) in mechanical ventilation during general anaesthesia for surgery. Schultz and his scientific team tested the hypothesis that at-risk patients would suffer fewer postoperative pulmonary complications if a strategy involving a high level of PEEP and recruitment maneuvers at a low tidal volume was used during open abdominal surgery.

From February 2011 to January 2013, 447 patients were randomly allocated to the higher PEEP group and 453 to the lower PEEP group for the trial². Median levels of positive end-expiratory pressure were 12 cm H₂O (IQR 12- 12) in the higher PEEP group. Postoperative pulmonary complications were reported in 174 patients (40 percent) of the higher PEEP group. In the lower PEEP group (median levels at 2 cm H₂O [0-2]), the number of patients with complications was negligibly smaller at 172 (which equals 39 percent).

However, compared with patients in the lower PEEP group, those in the higher PEEP group developed intraoperative hypotension and required more vasoactive drugs. The study therefore disproved the original hypothesis. A strategy with a high level of positive end-expiratory pressure and recruitment maneuvers during open abdominal surgery does not protect against postoperative pulmonary complications. As a result, an intraoperative protective ventilation strategy should include a low tidal volume and low positive end-expiratory pressure without recruitment maneuvers. ESA Prize awarded for the ninth time The ESA Prize in Anaesthesia and Intensive Care Medicine is awarded annually to a research team in the fields of anesthesia or intensive care medicine in order to foster team spirit and cooperation between clinical care and industry in scientific research. The prize is awarded to scientific papers published over the course of the previous year. In 2007, it was awarded for the first time.

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Published on : Mon, 13 Jul 2015