

AB224. A case of early desaturation using high flow nasal oxygen in an obese patient

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Abstract: In a recent case of a 55-year-old female with a body mass index (BMI) of 50, presenting for urgent laparotomy for strangulated ventral hernia, we predicted a short desaturation time and elected to use high flow nasal oxygenation to increase the time to desaturation in apnoea prior to intubation. In preparation for the general anaesthetic the patient was positioned using a troop elevation pillow and head cradle. The patient was pre-oxygenated on high flow nasal oxygen (HFNO) at 40 L/min for greater than 3

minutes (maintaining oxyhaemoglobin saturations >97%), subsequently flow rates were increased to 70 L/min and a general anaesthetic was given, using intravenous fentanyl (100 mcg), Propofol (2 mg/kg) and rocuronium (1 mg/kg). The patient experienced an acute desaturation to SpO₂ 79% in less than 60 seconds following induction despite appropriate patient position and jaw thrust to maintain optimal FRC and adequate preoxygenation combined with the use of apnoeic oxygenation via high flow nasal insufflation as recommended. In this case, emergency manual ventilation was required and HFNO had to be abandoned for the safety of the patient. This case serves to highlight one such limitation in a cohort of patients and serves as a reminder that HFNO should form part of your anaesthetic plan, whilst having a secondary plan should it fail.

Keywords: Apnoeic oxygenation; THRIVE; high flow nasal oxygen (HFNO)

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