Cricoid pressure revisited

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Application of cricoid pressure has been considered an important part of rapid sequence induction (RSI) of anaesthesia and is standard textbook teaching.[1] The aim is to prevent regurgitation of gastric contents into the oesophagus and their aspiration into the respiratory tract. Application of cricoid pressure is supposed to compress the oesophagus between the cricoid cartilage and the vertebral body. An effective cricoid pressure is in the range of 30-40 N.[2]

The use of cricoid pressure has been questioned, both with regard to its efficacy and due to the fact that its application may lead to difficulties.[3] Published reports show that aspiration occurs despite application of cricoid pressure.[4-6] Recent studies using MRI scans have shown that the cricoid cartilage, the oesophagus and the vertebral body are not in a straight line and, as a result, the oesophagus gets only partially occluded.[7] Cricoid pressure application may be associated with distortion of the airway anatomy, resulting in difficulty in intubation or insertion of supraglottic devices and possible trauma. A force close to that required to provide effective cricoid pressure may cause severe worsening of the glottic view in many patients.[8]

The level of evidence on which the use of cricoid pressure has been based is considered very weak.[3,9,10] Re-examination of the use of cricoid pressure has been suggested for quite some time and has been reinforced more recently.[3,11,12] The pressure should certainly be released promptly if any problems are encountered at intubation.[13] It should now be seriously considered if application of cricoid pressure should be mandatory, or considered important in the standard of care.

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