Patient with juvenile rheumatoid arthritis submitted to cornea transplant – solution for the difficult airway.

K. Czajkowska*, M. Bela, L. Germanova; Coimbra Hospital and University Centre

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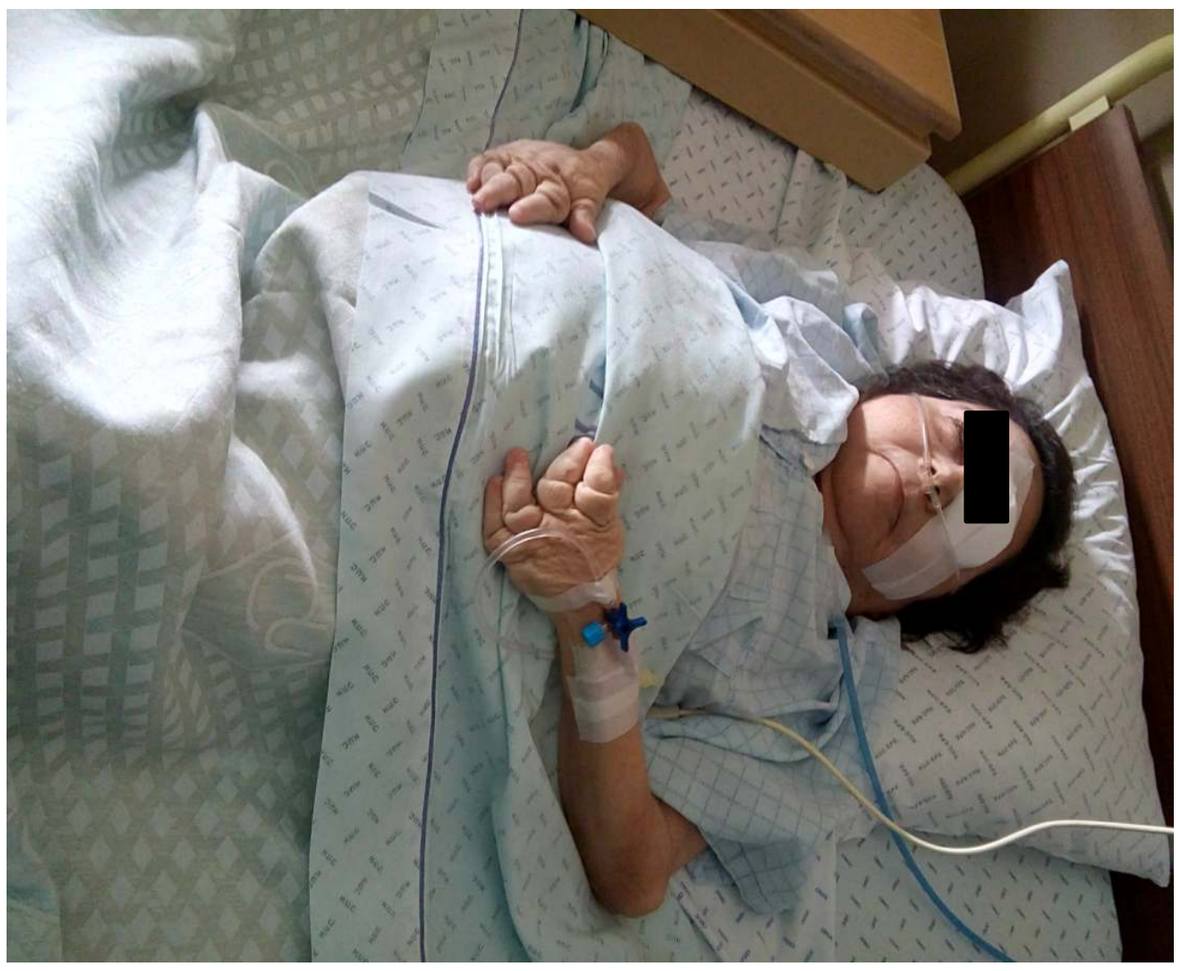
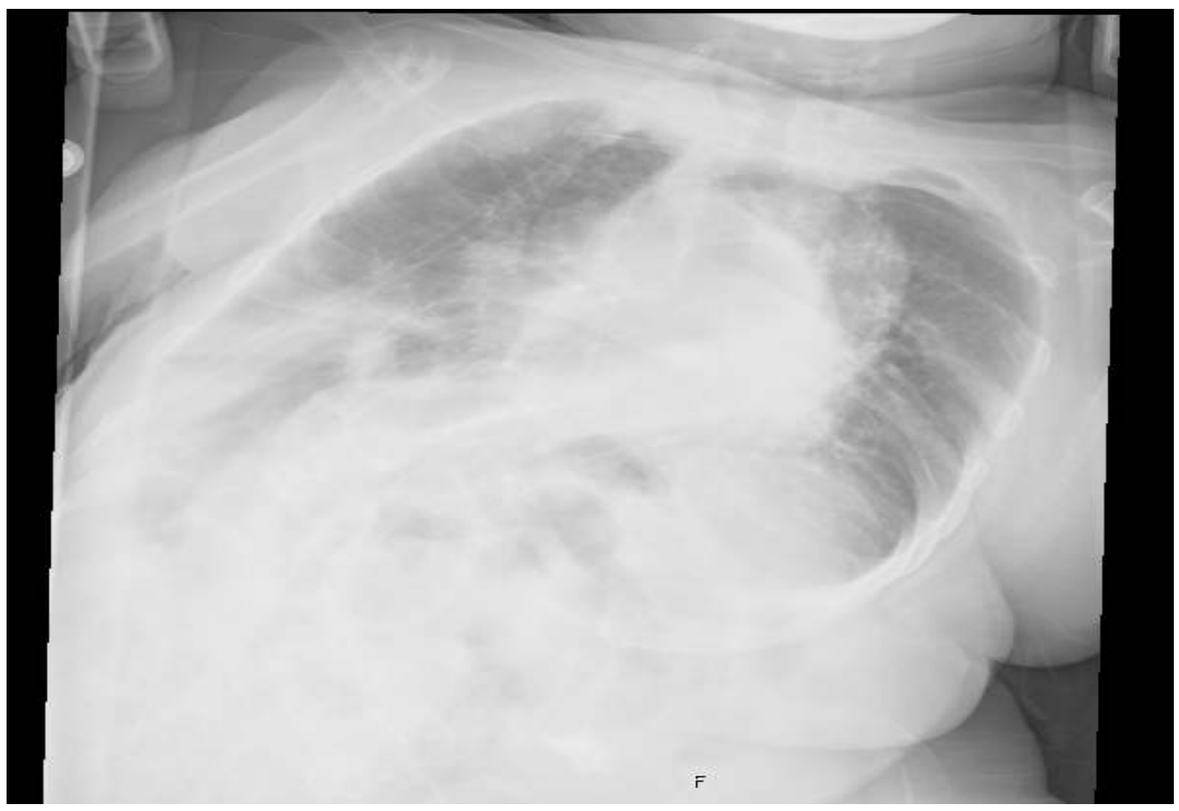
Background

Juvenile rheumatoid arthritis (RA) is a chronic autoimmune multisystemic inflammatory disease which affects many organs but predominantly attacks joints. In many patients it can cause movement limitations of the neck and the temporomandibular joint leading to a difficult airway. The use of supraglottic airway devices (SADs) presents many advantages in patients with RA scheduled for an elective ophthalmic surgery

Case report:

51 years old female, 40kg and 1,3m (BMI 23,4m^2/kg), with advanced juvenile RA, completely dependent on activities of daily living, who due to cornea transplant failure was scheduled for a re-intervention. Preoperative evaluation revealed multiple osteoarticular deformities of upper and lower limbs, severe kyphoscoliosis, reduced cervical mobility, thyromental distance < 6cm, mouth opening around 3cm and class IV Mallampati. Previous procedure was performed under general anaesthesia and fiberscope was necessary for the endotracheal intubation. We proceeded with the induction of anaesthesia with 8% Sevoflurane and when the loss of consciousness was achieved, we secured the airway with a SAD. I-gel device n°3 was inserted with no difficulties and a good seal was obtained. During the induction phase, fiberscope was immediately accessible and could be used if necessary. Maintenance of anaesthesia was continued with 2% Sevoflurane, patient was mechanically ventilated and we reported no complications during the surgery nor during the extubation.





Discussion:

Due to severe deformities, anaesthesia management of that patient was challenging. With a predicted difficult airway, in the context of ophthalmic surgery, SAD may be indicated. MLA may help to avoid the increase of the intra-ocular pressure related to endotracheal intubation or coughing during the extubation, it also provides a smoother recovery[2]. To conclude, SAD may be used as a primary approach in patients with predicted difficult airway due to juvenile RA, scheduled for an ophthalmic surgery but access to fiberscope should be secured.

References:

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2. Intraocular pressure and haemodynamic responses to insertion of the i-gel, laryngeal mask airway or endotracheal tube., Ismail SAI, Bisher NA, Kandil HW, Mowafi HA, Atawia HA, Eur J Anaesthesiol. 2011 Jun;28(6):443-8.