42741 - ANESTHESIA FOR TIBIAL EXTERNAL FIXATION IN A PATIENT WITH TOURETTE'S SYNDROME

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PURPOSE To report the anesthetic management of a patient with Gilles de la Tourette's syndrome, presenting for orthopedic surgery.

CLINICAL FEATURES A 26-year-old 70 kg male with Gilles de la Tourette's syndrome, was admitted to the hospital after a car accident, with an open tibial fracture of the left lower extremity. He was presented for external fixation of the tibia. After institutional approval and patient's informed consent, his anesthetic management is described. The preoperative evaluation reveals history of smoking (14 pack-years), normal ejection fraction and heart valves, normal chest X-ray and EKG. He had shrugging of the shoulders and repetitive, abrupt, brief and irregular movements of the hands. He was treated, one month ago, with injections of botulinum toxin near the vocal cords for treatment of malignant coprolalia (a feature of the Tourette's syndrome). He mentioned marked improvement of coprolalia and other vocal tics, but reported marked hoarseness ever since. Regional anesthesia was decided, to avoid any interference with the vocal cords. Motor tics, upon arrival in the operating room were markedly increased, possibly due to agitation, hardening the procedure. Sedation with midazolam 6 mg IV could not control patient's movement and agitation, so plan was changed towards general anesthesia. After appropriate preoxygenation, anesthesia was uneventfully induced with fentanyl, thiopental and rocuronium. During laryngoscopy, vocal cords were inspected gray and oedematous, and glottic space was narrower than expected. The widest tube able to pass through was 7mm, and the cords felt excessively hard during intubation. Excess xylocaine gel was applied on the tube. Maintenance of anesthesia (using sevoflurane titrated to EEG entropy values of 40-60) and recovery were uneventful. Motor tics were not observed at all after recovery and did not reappear until 5 hours after discharge from the PACU.

CONCLUSION Gilles de la Tourette's syndrome is a chronic neuropsychiatric disorder, featuring mainly motor and vocal tics. There are special considerations for the anaesthesiologist when managing such patients. The motor tics may lead to technical difficulty in performing regional anesthesia. General anesthesia may be considered in order to prevent agitation or involuntary movements. If patient movement and agitation can be controlled by sedation, regional block may be attempted.

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