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Service (sector) Cataract N° CEP

EVALUATIONS OF SURGIIONS' STRESS DURING PHACOEMULSIFICATION AND ITS CORRELATION WITH SURGICAL EXPERIENCE R. CORTES, F. CASANOVA, G. BARCELOS, H. GUIMARAES, E. SORIANO.

PURPOSE - To evaluate the stress of surgeons during cataract surgery and its relation with their experience. **METHODS** - Two surgeons were evaluated using a Holter cardiovascular monitor during phacoemulsification: one at the beginning of the learning curve (surgeon A) whom performed 4 surgeries, and the other an experienced surgeon (surgeon B) whom performed 3 surgeries. Both performed the procedures together. Holter results were correlated with the different surgical steps through video documentation. Seven eyes of seven patients' aged from 62 to 78 years who underwent phacoemulsification were enrolled in this study. All patients had visual acuity between 20/80 and 20/200 in the eye with cataract and 20/30 or better in the other eye and no associated ocular and/or systemic disease. **RESULTS** - From the seven procedures, two of them were excluded for absence of data. The surgeon A started the surgeries with an average heart rate (HR) of 63 (ranging from 60 to 103) and his HR during rest was 60. The surgeon B started the surgeries with an average HR of 100 (ranging from 83 to 140) and his HR during rest was 85. Both surgeons had no cardiovascular diseases. Only one surgery had a serious complication with the possibility of nucleus and intraocular lens luxation into the vitreous. Surgeon A did not realize it, causing increased HR in surgeon B. Besides that, surgeon B showed anxiety during all procedures, keeping a HR higher during the surgeries performed by surgeon A than in those performed by himself. The phacoemulsification steps that showed more stress were during capsulorrhexes, nucleus rotation and aspiration of the last fragment of nucleus. Surgeon A didn't show any alteration of HR during the surgeries performed by surgeon B, but showed little variation during the procedures performed by himself, occuring during the first steps of surgery and when the visibility of the anterior chamber was compromised by air bubbles. **CONCLUSIONS** - Surgeon A showed little concern during surgery, however surgeon B presented more concern during the delicate steps of surgery and his stress increased when surgeon A performed the surgery. The surgical experience plays an important roll in identifying possible complications earlier, pointing the moments of higher concern during surgery.