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Sedations for opthalmologic procedures result in difficult recoveries and longer recovery times

Introduction: Sedations for ophthalmologic procedures (ophtho sedations) can have agitation and pain during recovery. This has never been quantified or characterized.

Methods: After IRB approval, ophtho sedations from 1/2012 through 1/2017 were identified. Control sedations were assembled from 9/2016. Charts were reviewed for age, weight, ASA, procedure, drugs, pain scores, anesthesia and recovery times and narrative notes. An unacceptable pain score was set at 4/10. Differences were evaluated using chi-squared and t test where appropriate. Alpha was p=0.05.

Results: Ophtho sedations numbered 166 in 132 patients. These included electroretinogram, injections, exams under anesthesia, retinal imaging and suture removal. Control sedations numbered 166 in 148 patients and included imaging, lumbar punctures (LP), biopsies, bone marrow aspirates (BM), nuclear medicine studies and radiation therapy. Among the ophtho sedations, 45 patients (27%) had an agitated or painful recovery. Children with a difficult recovery took longer to recover, mean 37 minutes versus 30 minutes (p=0.02). Only 23 patients in the control group had an agitated recovery (14.4%). The difference between ophtho and control sedations was statistically significant, p=0.004. This difference disappeared when only controls having an invasive component (LP, BM, biopsies, PICC lines) were used. Here, the rate of an agitated wake up was 11/48 (23%, p=0.7). No controls had unacceptable pain scores. Of the ophtho sedations, 100% received propofol with additional alfentanil in 14%. For the controls, 98% received propofol with additional alfentanil in 28%.

Discussion: Ophtho sedations saw a higher rate of agitated recoveries than controls. This rate was high at 27% and resulted in longer recoveries. There was also a very high rate of agitated recoveries among control sedations for invasive procedures, 23%. The cause of this is likely multifactorial as pain alone does not explain the phenomenon.