

## PAIN PERCEPTION IN SEQUENTIAL CATARACT SURGERY: COMPARISON OF FIRST AND SECOND PROCEDURES

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**Purpose:** To compare the pain score and anxiety level between first and second cataract extractions under topical anesthesia with monitored anesthesia care.

**Methods:** Consecutive adults having bilateral sequential clear corneal cataract extraction using phacoemulsification under topical anesthesia with monitored anesthesia care were recruited. Exclusion criteria included baseline eye pain, poor comprehension, and complicated cataract extraction. Patients completed 4 short perioperative surveys with each cataract extraction as follows: the Amsterdam Preoperative Anxiety and Information Scale (APAIS) and the State-Trait Anxiety Scale (STAI) preoperatively and a 0–10 visual analog scale pain survey twice after surgery. The primary outcomes were pain level and the difference in pain between first eye and second eye surgery.

**Results:** Of the 65 patients who completed the study, 26 (40%)

reported higher visual analog scale pain scores for the second cataract extraction. Overall, the median pain score was 0 (range: 0–6) for the first cataract extraction and 1 (range: 0–9) for the second ( $P=0.004$ ). By one day postoperatively, the pain scores were similar (median 0; range 0–9;  $P = 0.58$ ). Both APAIS and STAI anxiety scores decreased between surgeries ( $P=0.003$  and  $P < 0.001$ , respectively).

**Conclusions:** Cataract patients experience a subtle increase in pain in the second eye surgery relative to the first, despite cataract extraction procedure being a relatively painless procedure under topical anesthesia with monitored anesthesia care. This appears to be associated with decreased preoperative anxiety and may be related to the amnestic effects of intravenous sedation. These data may explain a common operative observation.

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