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183 Preoperative Sinonasal Symptom Scores Predict Post-Surgery, Post-Aspirin Desensitization Disease Status in Aspirin Exacerbated Respiratory Disease



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RATIONALE: Aspirin exacerbated respiratory disease (AERD) is a challenging upper and lower respiratory disease which requires joint management between allergists and otolaryngologists. Complete sinus surgery followed by aspirin desensitization (AD) appears to improve outcomes long-term. Recent studies have demonstrated a relationship between high preoperative, pre-AD sinonasal symptoms scores and severity of reactions during AD. In this study, we provide the first evidence for using stratified preoperative, pre-AD sinonasal symptom scores to predict postoperative, post-AD outcomes.

METHODS: Retrospective chart review of all patients with aspirin challenge-proven AERD who underwent complete endoscopic sinus surgery followed by AD. Preoperative, postoperative/pre-AD, and short- (<2 months) and long-term (>6 months) postoperative/post-AD sinonasal symptom scores were collected (22-item Sino-Nasal Outcomes Test, SNOT-22). A longitudinal linear mixed-effects model was used for data analysis.

RESULTS: Preoperative SNOT-22 scores (n=47) were divided into tertiles (cutoffs of 36 and 54 indicating mild [22.5 ± 13.7], moderate [44.3 ± 12.2], and severe [72.9 ± 19.7] disease). Postoperative, pre-AD SNOT-22 in all disease groups decreased and were not significantly different (12.3 ± 13.7 , 11.1 ± 12.2 , and 22.7 ± 19.7 ; $p=0.074$). Following AD, only the severe group scores worsened (35.0 ± 20.3 , $p<0.001$), whereas the other groups demonstrated negligible change (9.3 ± 14.3 and 14.4 ± 12.2). At 6 months post-AD, all groups redemonstrated convergence in symptom scores (23.7 ± 20.9 , 19.4 ± 15.4 , and 31.0 ± 27.6 , $p=0.304$).

CONCLUSIONS: Preoperative SNOT-22 scores may be used as a predictor of postoperative, post-AD patient-reported outcomes in AERD. Patients with mild and moderate disease may derive benefit from AD alone, while those with severe disease may require additional interventions (e.g., biologics).