Continuing Aspirin Desensitization Maintenance Therapy in a Triad Asthma Patient Needing Endoscopic Sinus Surgery

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Clinical Image
Discontinuing medication such as aspirin and Non-Steroidal Anti-Inflammatory (NSAID) medication is a universal tenet for elective surgery such as Endoscopic Sinus Surgery (ESS) to prevent excessive bleeding. Patients with triad asthma (also known as Aspirin Exacerbated Respiratory Disease AERD) suffer from three conditions: asthma, aspirin sensitivity, and nasal polyps. These patients are hypersensitive to aspirin and NSAIDs and with ingestion develop an acute asthma exacerbation. These patients often have the severest presentation of sinus disease with pansinusitis and nasal polyposis.

In patients with Triad Asthma Patients/AERD, Aspirin Desensitization Therapy (ADT) provides protection from asthma exacerbations associated with ingestion of aspirin and NSAIDs, but the desensitization procedure is generally performed after ESS. Occasionally, a situation is encountered where a patient is referred for sinonasal problems that are on aspirin desensitization maintenance therapy only to find they have clinical significant triad asthma and need ESS.

Recently a young female adult patient presented with this scenario. This patient was having asthma symptoms of wheezing, shortness of breath, dysnea, and coughing after ingesting ibuprofen. She was referred by her primary care physician to a medical allergist and after consultation and testing including in vivo testing for respiratory allergies which was negative was diagnosed with AERD by NSAID provocation challenge testing. Completing the aspirin desensitization protocol was extremely challenging and difficult for this patient requiring 3 attempts. However, once the aspirin desensitization protocol was completed the patient tolerated her aspirin desensitization maintenance therapy regimen of 650 mg of aspirin twice daily very well.

Because the patient had symptoms of anosmia, nasal congestion and obstruction with clear and colored postnasal drainage the patient was referred to otolaryngology. Nasal endoscopy revealed severe bilateral nasal polyp disease and a severe right greater than left nasal septal deviation. A paranasal sinus CT scan was performed which showed severe pan-rhinosinusitis and nasal airway...
soft tissue densities consistent with the patient’s nasal polyp disease found on nasal endoscopy (Figures 1 and 2). Endoscopic sinus surgery with septoplasty and modified bilateral submucosal resection of the inferior turbinates was offered to the patient and discussed in detail with the patient and parents.

After a comprehensive discussion with the patient and parents of whether to continue or stop her aspirin desensitization maintenance therapy it was mutually decided to proceed with ESS and continue aspirin desensitization maintenance therapy uninterrupted because of the concern that the patient would not be able to complete the aspirin desensitization protocol again given her prior history.

The patient underwent extensive ESS of all the paranasal sinuses (including nasal polypectomy) with the aid of sinus CT navigation. Septoplasty and modified submucosal resection of the inferior turbinates were also performed. All planned procedures were easily performed with only a 100 ml blood loss. No nasal packs were placed except for a resorbable dressing (Nasopore®, Stryker Neuro Spine ENT) to each ethmoidectomy cavity site. Bleeding postoperatively was minimal, and recovery was routine.

Otolaryngologists who encounter similar situations such as this one can use this communication to help their clinical decision making regarding stopping or continuing aspirin desensitization maintenance therapy in triad asthma/AERD patients in need of ESS.