The Upper Airway

Allergic Rhinitis and Its Consequences on Quality of Sleep: An Unexplored Area

PURPOSE OF THE STUDY. Allergic rhinitis (AR) is common and has been shown to impair social life and sleep. Patients with severe symptoms may have more sleep disturbances than those with a mild form of the disease, but this has never been assessed with a validated tool. The objective of this study was to assess, in patients with AR, whether duration and severity of AR are associated with sleep impairment.

METHODS. A nationwide controlled, cross-sectional epidemiologic study was conducted. A representative sample of 260 French ear, nose, and throat and allergy specialists enrolled 591 patients aged 18 to 50 years with AR of at least 1 year’s duration. Sleep disorders, sleep quality, and AR were assessed by using validated tools (Sleep Disorders Questionnaire, Epworth sleepiness scale, and score for allergic rhinitis). The severity of AR was assessed by using the allergic rhinitis and its impact on asthma classification.

RESULTS. All dimensions of sleep were impaired by AR, particularly by the severe type. Sleep was significantly more impaired in patients with severe AR than in those with the mild type. The duration of AR (intermittent or persistent) had no effect on sleep.

CONCLUSIONS. These data underline the close relationship between AR and sleep and highlight the need for clinicians, particularly general practitioners, to be attentive in this respect.

REVIEWER COMMENTS. This was the DREAMS study (Etude Descriptive des Rhinites Allergiques et des Modifications du Sommeil), and although that is really cute, I am not sure it is truly fair to use the authors’ native French to make an English acronym. Anyway, the main weakness here is that they did not perform sleep studies on the patients. Nonetheless, they used validated instruments (questionnaires) to establish the severity of the AR and its impact on sleep quality. There is no reason to think that similar effects would not also occur in children with AR. The study also points out the importance of understanding the effects of AR on many quality-of-life indicators.

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Intracranial Complications of Sinusitis in Children and Adolescents and Their Outcomes

PURPOSE OF THE STUDY. To evaluate the presentation, imaging, microbiology, treatment, and outcome of intracranial complications of sinusitis in children.

STUDY POPULATION. The study included 25 consecutive children and adolescents treated for intracranial complications of sinusitis over a 5-year period.

METHODS. This was a retrospective chart review of patients who were identified by screening admission diagnoses for central nervous system infections including intracranial abscesses, meningitis, encephalitis, and dural sinus thrombophlebitis. These records were cross-referenced for both procedure codes for external and endoscopic sinus surgery and diagnosis of acute or chronic sinusitis.

RESULTS. Twenty-five consecutive patients were identified, with ages ranging from 4 to 18 years; 19 patients were male and 6 were female. There were 35 intracranial complications: 13 epidural abscesses, 9 subdural empyemas, 6 meningitis, 2 dural sinus thromboses, and 1 middle cerebral artery ischemia. Nine patients (36%) had >1 intracranial complication. Ten patients (44%) also had at least 1 extracranial complication: 5 with orbital cellulites, 4 with orbital/periorbital abscess, 1 with forehead abscess, and 1 with forehead edema. Seventy percent of the patients with extracranial complications had epidural abscess as their intracranial complication. In addition, 12 patients (48%) presented with neurologic signs and symptoms, most commonly change in mental status (9 patients) or hemiparesis (5 patients). Of the 13 who presented without neurologic signs and symptoms, 9 (69%) had epidural abscess as their only intracranial complication. Fifteen patients had computed tomography imaging with contrast, identifying 12 (63%) of 19 complications in those patients. MRI was performed in 19 patients, identifying 26 (93%) of 28 complications in those patients. Cultures grew multiple organisms in more than one half of the patients, 53% of which were Streptococcus species. Outcomes were divided into 3 groups. No patient in group 1 (14 patients) had neurologic deficits or events. All the patients in group 1 underwent endoscopic sinus surgery (100%), and 7 (50%) underwent a neurosurgical procedure. By definition, there were no short-term or long-term sequelae for the children in group 1. Group 2 included 8 patients who experienced short-term neurologic sequelae only. Seven patients of group 2 underwent endoscopic sinus surgery (88%), and 5 (63%) underwent a neurosurgical procedure. Group 3 included 3 patients who experienced permanent neurologic deficits (bilateral sensorineural hearing loss for one and hemiparesis, expressive aphasia, and seizures for the other) or death. Two patients in group 3 underwent endoscopic sinus surgery (67%), and 1 (33%) underwent a neurosurgical procedure.

CONCLUSIONS. Intracranial complications of sinusitis in children present diagnostic challenges, because many patients lack a history of sinusitis and present with
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