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3-day course of antibiotics may be sufficient following tonsillectomy

Children who receive a three-day course of antibiotics following tonsillectomy rather than a seven-day course appear to have no differences in pain or how quickly they return to a normal diet and activity level, according to a report in the October issue of *Archives of Otolaryngology–Head & Neck Surgery*, one of the JAMA/Archives journals.

About 45.6 of every 10,000 children younger than 15 undergo tonsillectomies, most often as a treatment for sleep-related breathing disorders and recurrent tonsillitis, according to background information in the article. Tonsillectomy is a relatively safe procedure with a low death rate, but complications such as pain, bleeding, lethargy and bad breath often occur, particularly in the week following surgery.

"Pain can lead to decreased oral intake and ultimately dehydration," the authors write. "The use of postoperative antibiotics to relieve pain following pediatric tonsillectomy was first reported more than 50 years ago. It is thought that the normal oral bacterial flora colonize the denuded tonsillar fossae [cavity] and release inflammatory mediators that cause pain. Antibiotic use after tonsillectomy may quantitatively lessen the bacterial content and thus reduce pain."

Paul E. Johnson, M.D., of New York-Presbyterian Hospital/Weill Cornell Medical Center, New York, and colleagues studied 49 patients scheduled to undergo tonsillectomy with or without adenoidectomy (removal of glands in the back of the throat). Twenty-six of the patients were randomly assigned to receive seven days of postoperative antibiotics, and 23 received three days of antibiotics followed by four days of placebo. Parents were asked to record how much pain medication the child took for the first seven days after surgery, as well as when the child resumed a normal diet and activity level and whether he or she required treatment for bleeding or dehydration.

A total of 47 patients (96 percent) completed the study. No statistically significant difference was observed between the two groups in postoperative pain or in the amount of time it took children to resume their normal diet and activity level.

One adverse effect from the antibiotics—diarrhea—was reported in one patient in each study group. "A potential disadvantage [of a shorter course of antibiotics], outside of the study measures, would be increased postoperative fever and infection," the authors write. Both patients with this problem, and one patient with postoperative bleeding, were in the seven-day antibiotic group.

"Based on our results, a three-day course of antibiotics is as effective as a seven-day course," the authors write. "A shorter course of antibiotics carries other potential advantages, including decreased cost, increased patient compliance with medications and a decrease in antibiotic-associated complications and bacterial resistance."

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