Medical Xpress

Families choosing treatment options for uncomplicated appendicitis in children

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When chosen by the family, nonoperative management with antibiotics alone was an effective treatment strategy for children with uncomplicated appendicitis, incurring less illness and lower costs than surgery, according to a study published online by *JAMA Surgery*.

Acute appendicitis accounts for approximately 11 percent of pediatric emergency department admissions, with more than 70,000 children hospitalized for it annually in the United States. Although curative, appendectomy is an invasive procedure requiring general anesthesia with associated risks and postoperative pain and disability. Current evidence suggests that nonoperative management of uncomplicated appendicitis is safe, but overall effectiveness is determined by combining medical outcomes with the patient's and family's perspective, goals, and expectations, according to background information in the article.

Peter C. Minneci, M.D., M.H.Sc., and Katherine J. Deans, M.D., M.H.Sc., of the Research Institute at Nationwide Children's Hospital, Columbus, Ohio, and colleagues evaluated the overall effectiveness of nonoperative management for acute uncomplicated pediatric appendicitis, in the context of engaging the family in the treatment decision. The study included 102 patients, 7 to 17 years of age, presenting at a single pediatric acute care hospital. Participating patients and families gave informed consent and chose between urgent appendectomy or nonoperative management entailing at least 24 hours of in-hospital observation while receiving intravenous antibiotics and, on demonstrating improvement of symptoms, completion of 10 days of

treatment with antibiotics by mouth.

Sixty-five patients/families chose appendectomy and 37 patients/families chose nonoperative management. The success rate of nonoperative management (defined as not undergoing an appendectomy) was 89 percent at 30 days and 76 percent at 1 year. There was no difference in the rate of complicated appendicitis between those who had undergone appendectomy secondary to failure of nonoperative management and those who chose surgery initially. After 1 year, children managed nonoperatively compared with the surgery group had fewer disability days (8 vs 21 days), lower appendicitis-related health care costs (median, $4,219 vs $5,029), and no difference in health-related quality of life at 1 year.

The authors note that other studies have shown that engaging families in shared decision making in pediatric clinical care has improved medical outcomes.

"The idea that patient choice both empowers the patient and improves overall patient satisfaction is well established. The question is, when should patients have the choice?" write Diana Lee Farmer, M.D., F.R.C.S., and Rebecca Anne Stark, M.D., of the University of California Davis School of Medicine, in an accompanying commentary.

"Demonstrating that different treatment options have equivalent outcomes is the first step in determining whether offering a choice is safe. However, balancing the biases of both the physician and the patient is difficult, especially because physician bias is based on personal experience and comfort level and thus may be of more value than the bias of the patient."

"Further study is needed in this arena before we completely abdicate the responsibility for guiding our patient's decision making. Many patients

still want us to be 'doctors,' not Google impersonators."

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