

Age-Related Bariatric Approach Needed for Teens

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Bariatric surgery in adolescents, while still uncommon, has dramatically increased in the United States in the past decade, according to a recent study. And the trend may require an age-tailored approach.

"Because the long-term metabolic and psychological consequences of bariatric surgery may differ between adolescents and adults, this trend toward greater use of bariatric surgery in teenagers emphasizes the importance of rigorous outcomes research in this area," wrote Dr. Wilson S. Tsai of the division of pediatric surgery at Robert Wood Johnson Medical School, New Brunswick, N.J., and colleagues (*Arch. Pediatr. Adolesc. Med.* 2007;161:217-21).

The study used data from the Nationwide Inpatient Sample (NIS) from 1996 to 2003 to determine rates of bariatric

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surgery in adolescents (aged 10-19 years) and used 2003 data only to compare early postoperative outcomes in adolescents and adults.

According to the data, 566 bariatric procedures were performed on adolescents between 1996 and 2003. Be-

cause the NIS data are designed to contain a representative 20% of U.S. nonfederal hospitals, these records corresponded to an estimate of 2,744 bariatric procedures that were performed on adolescents nationwide, noted the authors.

Although the annual rates of bariatric surgery remained stable between 1996 and 2000, the rate increased more than threefold by 2003, and in-hospital charges for adolescent patients climbed to more than \$23 million.

Most of the adolescent patients were female (79%), had no comorbid conditions (89%), and underwent a gastric bypass procedure (90%) as opposed to nondiversion operations. Most patients were aged 15-19 years (96%), with the youngest patients aged 12 years. Most procedures were done in urban hospitals (96%), and 53% were done in teaching hospitals, the authors reported. Major complications occurred in 5.5% of adolescents, and most (78%) were respiratory.

Using data from 2003 only, the investigators did a comparison between adolescents and adults who were undergoing bariatric surgery. It was estimated that a total of 771 adolescent procedures were performed, such that adolescents represented 0.73% of all bariatric surgery patients. Compared with adults, the adolescent patients had a significantly lower proportion of females (70% vs. 83%) and were significantly less likely to have comorbid conditions (12% vs. 32%).

The percentage of major complications did not differ significantly between adults (7%) and adolescents (4%), and these were most commonly respiratory in both age groups.

The mean length of hospital stay was 3.2 days for adolescents versus 3.5 days for adults, and average hospital charges were 15% lower for adolescents. In-hospital deaths were observed in 0.2% of adults and no adolescents.

"This trend suggests that the health

benefits of bariatric surgery increasingly are being recognized by patients and physicians treating adult and pediatric populations," noted the authors.

However, they suggested that many adolescents may undergo bariatric surgery at adult centers where there is limited experience in dealing with adolescents.

Such centers "may be well equipped to provide safe and effective perioperative care for adolescents but may be less equipped to handle these patients' unique

metabolic and challenging psychological needs," the authors wrote

The investigators recommended that, at a minimum, adult centers should provide age-tailored nutritional and psychological support services for adolescents. In addition, they also suggested that "referral of adolescents who are candidates for bariatric surgery to regional specialty centers may greatly facilitate research that can lead to a better understanding of the optimal treatment approaches." ■

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References: 1. US Food and Drug Administration. Center for Drug Evaluation and Research. Questions and answers on final rule of albuterol MDIs. Available at: <http://www.fda.gov/cder/mdi/mdiFAQs.htm>. Accessed October 23, 2006. 2. Schering-Plough stakeholder letter. Important information on the availability of albuterol CFC inhalers. Kenilworth, NJ. October 2006. 3. US Food and Drug Administration. Center for Drug Evaluation and Research. Approved drug products with therapeutic equivalence evaluations (the "Orange Book"). 26th ed. Available at: <http://www.accessdata.fda.gov/scripts/cder/ob/docs/tempai.cfm>. Accessed November 28, 2006. 4. Xopenex HFA Prescribing Information. 5. Verispan PDDA. Moving Annual Total. Average number of canisters per year. March 2005-April 2006.

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