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Preface

Surgical Innovations: Improving Quality of life

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Guest Editor

The aging process is accompanied by the accumulation of chronic diseases, many that impair the physical functioning and quality of life of elderly patients. Increasingly, surgical therapies play an important role in helping to improve the patient's prognosis, physical functioning, and independent lifestyle. The spectrum of surgical innovations runs the gamut from joint and organ replacement to minimally invasive diagnostic and therapeutic techniques, restoration of sensory impairments, and cosmetic surgeries.

This edition of *Clinics in Geriatric Medicine* focuses on many of the surgical innovations that offer the potential to improve the functional independence and quality of life of older patients. Most articles highlight the surgical treatment of patients 75 years of age and older, offer existing evidence of the effectiveness of these approaches from the published medical literature, and demonstrate the potential impact of these innovations on the health-related quality of life of older patients. Dr. Hornick's article features a scholarly review of the measures of quality of life (QOL); a review of the nascent literature demonstrating the beneficial effects of surgery on QOL, notably for orthopedic, cardiac, and eye surgeries; and a reminder to us that for many frail older patients, QOL is an outcome at least as relevant as the extension of life. As the baby boomers age we can anticipate that the demand for more curative and palliative surgical procedures will increase, placing a growing strain on our health care resources and requiring physicians to hone their skills in the matching of patients with the most

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appropriate surgical procedures. His article also underscores the need for quantitative data regarding the impact of surgical procedures on the QOL of frail patients. For so many common operations, the data that we need as geriatricians to guide our patients are lacking or at best are extrapolated from young or healthy older patients to the oldest and most vulnerable patients, without empiric evidence of safety or long-term effectiveness.

St. Clair and colleagues review the amazing history of total knee and hip arthroplasties and illustrate the remarkable story of the marriage of high technology to advanced surgical techniques to produce constantly improving clinical outcomes. The authors also emphasize that the prognosis of arthroplasty is less related to the age of the patient than it is to comorbid conditions, an observation that is often made with respect to mortality from medical or surgical illnesses. In particular, we can anticipate the number of knee and hip arthroplasties to grow steadily in the next 10 to 20 years. Despite the short-term evaluation of these operations on QOL, we need longer-term studies to examine their continuing impact on QOL and specifically on the performance of daily activities and mobility. Is the short-term risk of functional decline and impaired QOL of arthroplasty justified by the long-term salutary effects on muscle strength and mobility, reduced dependency on caregivers, and reduced risk for nursing home placement? Drs. Shedid, Togawa, and Lieberman's article on the use of kyphoplasty for vertebral augmentation makes an argument for considering kyphoplasty for most elderly patients who present with acute back pain and evidence of a fragility fracture. Long-term follow-up of these patients will inform us of the cost effectiveness of this approach to a common, painful, and often debilitating process.

Several articles follow that summarize advances in diagnostic techniques and surgical approaches to common diseases. Dr. Walsh reviews the advances in less invasive surgical treatment of biliary tract diseases. Open laparoscopic cholecystectomy offers the advantage of lower risks of short-term morbidity, but the limited number of studies provides results that are not as favorable for elderly patients when compared with younger patients. Likewise pancreatic cancer is rarely curable, but diagnostic accuracy can improve the selection of patients for curative therapies or palliation. Drs. Conti and Lick present the impressive data showing the benefits of surgical intervention for coronary artery and valvular heart diseases in very old patients, but also point out the poorer prognosis of elderly patients who have dementia or malnutrition. Dr. Geraghty reviews the evidence that less invasive approaches to abdominal aortic aneurysm repair result in reduced morbidity and a trend toward reduced mortality compared with open surgery. He also reminds us that percutaneous interventions may prove helpful for active elderly patients who have lifestyle-limiting lower extremity claudication. Drs. Messinger-Rapport and Crowe review the considerable evidence demonstrating the value of minimally invasive surgical techniques used for diagnosis and treatment of breast cancer in the older population.

Drs. Atiemo and Daneshgari describe the myriad older surgical procedures and the newer, less invasive techniques under investigation to treat pelvic organ prolapse; their review leaves us hopeful that these newer techniques can be offered to even our most frail patients. Likewise, Drs. Factora and Luciano make us more hopeful that we will be able to offer greater diagnostic precision and improved shunting techniques for the older patient who has clinical features of normal pressure hydrocephalus. Drs. Roger, Butler, and Benzel provide succinct reviews of the neurosurgical approaches to brain tumors and subdural hematomas. They inform us that surgeons are able to offer a cure for many brain tumors and, in concert with radiation therapists, palliation to patients who have incurable tumors. The improvement in QOL is perhaps most dramatically illustrated with cataract surgery: the advances in surgical techniques of this and other common eye diseases are impressive, as reviewed by Drs. Singh and Lewis. Although cochlear implants are most often used in middle-aged patients, Drs. Connell and Balkany inform us that implants are becoming a more common form of aural rehabilitation for many geriatric patients.

Not long ago a review of renal transplantation or cosmetic surgery for elderly patients would be irrelevant to geriatric practice. But as Drs. Morrissey and Yango's review illustrates the number of people age 65 years and older receiving renal transplants is growing and for many of these patients QOL is superior to dialytic therapy of end-stage renal disease. The explosion of interest in cosmetic surgery has not excluded the older population. Dr. Zins and Moreira-Gonzalez review this phenomenon and describe in detail the common cosmetic techniques that are being used in the older patient. As the boomers age, geriatricians need to understand the indications and potential risks and benefits of cosmetic surgery for their patients. Perhaps we assume axiomatically that QOL is improved for patients undergoing cosmetic surgery; but the short-term effects of surgery and the long-term physical and psychologic impact of these procedures should be evaluated in controlled studies. Overall, I hope you agree that these reviews suggest many exciting opportunities for geriatricians to collaborate with our surgical colleagues in the assessment and management of patients who are being considered for surgery. Opportunities for collaboration in outcomes research abound for us also.

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