or to determine the association between a genetic risk factor and the severity of POCD [4].

We concur completely that the use of continuous measures provides greater statistical power and allows more sophisticated analyses than the use of binary outcome measures in studies designed to determine the nature and the severity of POCD. In fact, we [4] recently demonstrated that application of a binary clinical criterion for "cognitive impairment" in older people on a single occasion resulted in a 50% false-positive classification rate. This false-positive rate was reduced dramatically when the same criterion was applied serially and only those individuals who consistently met the criterion were rated as impaired. Further, when serial data collected in individuals were considered on a continuous scale rather than as a binary outcome (below or above the cutoff score), greater sensitivity to subsequent cognitive impairment was observed.

Like Whitaker, we believe the use of continuous data is crucial to understanding the nature and the severity of POCD in patients who have undergone coronary artery surgical procedures. We also believe that observational studies designed to estimate the incidence of POCD using binary classification criteria are likely to contain high rates of false-positive classifications.

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25-Year Follow-Up of Homograft Aortic Conduits for Coarctation Repair

To the Editor:

I read with interest the article by Huttl and associates [1] concerning 40-year follow-up of 4 patients who underwent homograft aortic segment replacement of the aortic isthmus for management of long segment coarctation.

Doctor Robert E. Gross at the Boston Children's Hospital was the first to perform this procedure in humans in 1948. He reported on the first 19 patients in 1951 [2] and between the years 1948 and 1964 carried out this operation in 88 patients. Doctor Gross and I carried out follow-up studies on this patient group in 1968 and again in 1973 [3]. Of the 88 patients, 12 had homografts preserved in nutrient medium as reported by Huttl. The remaining 76 received grafts that were sterilized by irradiation and then preserved by freeze drying. Of the total group, there were 6 initial hospital deaths. Follow-up in 1968 was on 45 patients up to 20 years postoperatively and repeat follow-up in 1973 was on 40 patients up to 25 years postoperatively. During this 25-year period there were 9 known late deaths, only 2 of which were related to the original aortic homograft or coarctation. One patient died 6-1/2 months postoperatively of a ruptured mycotic aneurysm of the superior imesentric artery thought secondary to infection of the homograft. A second patient died 19 years postoperatively with severe recurrent coarctation.

As the authors of the current article state, late follow-up information on homograft aortic material is of great interest today as it is used frequently in the repair of congenital cardiac anomalies as well as for vascular reconstruction in the presence of infection.

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Reply

To the Editor:

We are thankful to Dr Litwin for sharing the long-term results of pioneering work. Even by today's standards the surgical results of Dr Gross' team are outstanding. The management and operative techniques that we perform in our institution are based on his published article [1]. The tissue after homograft preparation becomes nonviable; however, this is probably not significant for aortic wall replacement. There is no evidence that maintaining cell viability during preparation and storage improves long-term results of allograft values [2]. The other similarity between Gross' team and our group is the operating strategy. Nowadays

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coarctation is managed mainly in infancy by resection and end-to-end anastomosis [3]. This is easy because of elastic tissues and removes ductal remnants. In the 1950s there was a long waiting list for advanced surgical methods and some patients became adolescents. In these patients, especially when longer aortic segments are affected, resection and implantation of an interposition graft is necessary. This method produces less stress on the suture line and on the normal aortic wall. It is questionable whether commonly used prosthetic materials can provide as good long-term results as homografts. But the lesson we can learn from the follow-up of our patients is that we can expect extremely good long-term outcomes when homograft tissue is implanted.

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MISCELLANEOUS

Preoperative Preparation of Patients With Myasthenia Gravis Forestalls Postoperative Respiratory Complications After Thymectomy

To the Editor:

Kas and colleagues [1] reported a 10-year retrospective review of early complications after standard or extended transsternal thymectomies for myasthenia gravis (MG) in 324 patients. Fifty-eight percent of them had moderately severe or severe MG. All of the patients were treated preoperatively with an anticholinesterase; 35 also received plasmapheresis; 34, immunosuppression; and 13, irradiation. Preoperative pulmonary function status was not defined. Postoperatively, the cholinesterase inhibitor was withheld for 48 hours during which time the patients were mechanically ventilated. At that point, the patients were extubated, and a standardized protocol of anticholinesterase medication was instituted.

Seventy-one patients (22%) experienced respiratory insufficiency, 49 of whom required reintubation of tracheostomy. In this abstract, Kas and coauthors concluded as follows: "The excessive incidence of respiratory insufficiency and airway-associated morbidity was potentially related, at least partially, to prolonged mechanical ventilation and withdrawal of anticholinesterase medication." They recommended that the duration of postoperative ventilatory support be reduced and the withdrawal of the anticholinesterase be hastened.

Kas and coworkers are to be congratulated for their detailed analysis of the postoperative complications, and we support their recommendations that this type of analysis be routinely performed when reporting the results of thymectomy for MG [2]. We are concerned, however, with the incidence of respiratory complications, disagree with their preoperative preparation program, and do not believe the proposed revision of their perioperative protocol is the solution. In our opinion, most postoperative respiratory complications in the patient with MG are directly related to inadequate preoperative preparation. The use of cholinesterase inhibit alone only temporarily masks the weakness of MG, and under these circumstances, patients with respiratory and oropharyngeal weakness preoperatively can be expected to have a high rate of postoperative respiratory complications.

Accordingly, most centers that treat patients with MG now recommend that these patients be made as free from respiratory and oropharyngeal weakness as possible preoperatively [3] and evaluate the patients with appropriate pulmonary function testing [4]. The use of plasmapheresis or intravenous immunoglobulin is usually recommended preoperatively for patients who have oropharyngeal weakness to achieve respiratory and oropharyngeal function that is as normal as possible; although immunosuppression is used by some, its role is less well defined [5, 6]. With this type of preparation, these patients can be expected to have a postoperative course similar to that of patients without MG undergoing the same type of surgical procedure. We recommend such a program to Kas and associates.

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