Trigeminal neuralgia in the elderly

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Rughani et al.1 used the Nationwide Inpatient Sample to access information on 3273 patients to evaluate the relationship between age, mortality rate, and morbidity in microvascular decompression (MVD) for trigeminal neuralgia (TN) between 1999 and 2008. Based on data from this large sample, they showed that an increase in both morbidity and death is associated with age following this operation. Categories of morbidity analyzed included cardiac, pulmonary, thromboembolic, and cerebrovascular disease, CNS infection, and wound complication.

All patients were coded similarly, so that there should be no age-related bias in coding. This strength is offset by the limits of data abstraction by medical coders, the limited clinical and radiographic information available in the data set, and the incomplete follow-up, particularly in the immediate postoperative period.

As the authors discuss, it is certainly conceivable that certain complications might have been over-coded by data abstractors and that some complications that would occur following discharge might be underreported. There is no reason to suspect that either error would be more prevalent in the older patient population.

The authors’ main conclusion was that acute perioperative complications associated with MVD in patients over the age of 65 years (1032 patients) and over 75 years (350 patients) were those associated with conditions that may be expected to increase with patient age for any surgical procedure performed under general anesthesia (for example, those for myocardial infarction, pulmonary embolism, or stroke), but that other more surgery-specific complications, like wound healing and bacterial meningitis, were not significantly elevated.

More importantly, the inpatient mortality rate was 0.68% in patients 65 years and older and 1.16% for those 75 years and older. These rates compare with a mortality of 0.13% for patients younger than 65 years. Seven of the 10 inpatient deaths in the sample occurred in patients 65 years and older. Of the 7 patients older than 65 who died, 5 had a cerebrovascular complication, whereas only 2 had systemic causes.

Other downstream effects of age were perhaps more subtle: the duration of the hospital stay was higher and the chance of discharge to home was lower in the older patient groups. While these parameters fall outside the normal definition of morbidity, they are substantial issues for patients, families, and hospitals.

As a mnemonic device, the authors suggest that we include in our discussions of MVD with older TN patients, the statistic that in patients over the age of 65 an overall complication rate of about 7% and an in-hospital mortality rate of about 0.7% are first approximations. Furthermore, in patients over the age of 75 years, a complication rate of about 10% and an in-hospital mortality rate of about 1% are reasonable estimates.

There are a host of surgical alternatives for older patients with medically refractory TN. Other possibilities include radiofrequency gangliolysis, radiosurgery, glycerol injection, balloon compression, and even peripheral trigeminal neurectomy. The principles of an informed patient and a thoughtful decision still apply. Ultimately, it is the patient’s choice. The option of MVD for patients older than 65 remains viable if the neurosurgeon possesses the requisite surgical skill and experience and if the patient is fully informed of the procedure, alternatives, and risks.

Disclosure

The author reports no conflict of interest concerning the materials or methods used in this study or the findings specified in this paper.

Reference


Response

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We appreciate Dr. Burchiel’s thoughtful comments and appraisal of our paper. As a leader in the field of TN, his remarks should lend merit to our findings. We all appreciate that most decisions should ultimately be in the hands of our patients and that the more knowledge and guidance that we provide them, the more enabled they will be to make these often difficult decisions.