

TABLE 1. Overall Rankings/Scores of Desired Attributes

Rank	Attribute	Average Score (SEM)
1	Good overall judgment	8.3 (0.44)
2	Handles stress appropriately	5.9 (0.23)
3	Dependable, conscientious	5.7 (0.46)
4	Respects and cares about people	5.6 (0.47)
5	Intellectually honest	4.0 (0.31)
6	Educationally self-motivated	3.9 (0.16)
7	Ethical	3.8 (0.34)
8	Flexible, adaptable	3.6 (0.37)
9	Good interpersonal skills	3.3 (0.38)
10	Quantified intelligence	3.1 (0.19)

teristics of beginning anesthesia residents. In a later questionnaire, participants were asked to rank order the pooled suggestions. After several rounds of ranking, the final top-ten attributes (determined by average rank score) from each department were combined and an overall average was calculated. Equal weight was assigned to each department.

Table 1 depicts the combined results. A Kappa statistic showed that a high degree of overall agreement existed between departments ( $P < 0.001$ ). Interestingly, analysis of individual department's rankings (not shown) disclosed that all ranked "good judgement" (defined as two problem-solving skills—logic and common sense) as most important. The next three attributes in the combined list were in the top two to four in all departments, although individual rank order varied. After these, the last six varied in rank between departments.

Our intent was not to designate some attributes as unimportant because *all* were valued. However, we were surprised to find that the top ten characteristics were primarily noncognitive, personal attributes. Quantitative assessment of "intelligence" (grades, National Board Scores) was ranked below the others. It appears that these faculty are indicating that high academic rank, although the most

readily quantified, is a necessary but not sufficient condition to begin training. However, much remains to be answered concerning the methods to select applicants with these basic underlying personality traits. Indeed, do these characteristics correlate with *final* resident or professional performance?

Realizing that much time and money are spent toward resident selection, this small study is offered to stimulate readers. What characteristics do we select now? Are they the same as those we really want to select? Will this ultimately affect what the specialty becomes?

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## Use of Nondepolarizing Anesthetic Agents in Penetrating Ocular Injuries

*To the Editor:*—Dr. Bourke's letter<sup>1</sup> on the use of depolarizing agents in patients with open eye injury makes a number of assumptions with which we strongly disagree. While it is true that in the past "only a small percentage" of patients with penetrating eye injury recovered useful sight, this is no longer the case if aggressive treatment, including advanced vitreoretinal surgical techniques, is applied. The Alabama Eye Injury Registry, for instance, reports that of 278 patients with penetrating eye injuries treated in this manner, 54% regained a visual acuity of

20/100 or better by 6 months postoperatively. In addition, it is not always possible to assess accurately the prognosis of a penetrating eye injury prior to surgery. Even patients felt to have the poorest prognosis preoperatively may regain useful vision. For these reasons, we feel the primary goal of surgery in open eye injury should be to afford the patient the best chance for preservation of eyesight.

The depolarizing blocking agent effect of raising intraocular pressure has been well described in the litera-

ture.<sup>2,3</sup> The expulsion of intraocular contents following succinylcholine induction is more than merely a theoretical concern. One of us (A.L.R.) has witnessed this complication, and the result was enucleation following a simple scleral laceration. For these reasons, we prefer the use of nondepolarizing agents in a small "priming" dose in the awake patient, followed by a larger "intubating" dose as described by Nagashima *et al.*,<sup>4</sup> and by Waldburger *et al.*<sup>5</sup> We have found that this allows the advantage of safe, quick intubation with a smaller total dose of the agent. Contrary to the impressions expressed in Bourke's letter, we have not seen an increased morbidity or mortality rate in our experience of approximately 200 patients over the past year.

The concept that the loss of sight in open eye injuries should be accepted as inevitable runs counter to the very purpose of surgery in these patients. If the loss of binocular vision could be accepted with equanimity, the fields of ophthalmology and ophthalmic anesthesia would not have developed to their present level of sophistication. Most patients with penetrating eye injuries are children or young adults with the major portion of their work life ahead of them. Monocular vision may seriously reduce the range of job opportunities available to these patients. There are also serious psychological and cosmetic considerations for monocular patients.

With the development of rapid-acting, nondepolarizing agents, we feel that succinylcholine is contraindicated in the induction of patients with open eye injuries because an alternative exists that is both safe to the patient and compatible with successful ocular reconstruction efforts.

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### Anesthesia for Open Eye Surgery

*To the Editor:*—In his letter, Dr. Bourke<sup>1</sup> compliments Libonati *et al.*<sup>2</sup> on their recent article supporting the use of succinylcholine in open eye surgery. He adds that, based on his own survey of ten ophthalmologists, "only a small percentage of patients with penetrating eye injuries recovered any useful sight in the injured eye" and that only two of 27 patients who had lost an eye considered monocular vision a handicap. We believe that these limited surveys seriously underestimate both the potential for useful vision postoperatively and the advantage of binocular vision.

In a series of three reports on a total of 1,077 patients who had perforating eye injuries,<sup>3-5</sup> the prognosis for useful vision after surgery was encouraging; 40-65% had vision of 20/40 or better; only about 20% of eyes had no useful vision. The prognosis was affected by several fac-

tors, especially by whether the injury involved the anterior and/or posterior segment of the eye, whether there was uveal prolapse, and whether intraocular reaction resulted.<sup>3-6</sup>

Recent advances in retinal surgery have demonstratively increased the salvage of vision after severe traumatic injuries to the posterior segment, *i.e.*, techniques to treat vitreoretinopathy, use of long-acting intraocular gases, silicone oil tamponade, intraoperative endophotocoagulation, and the use of retinal tacks.

Libonati's study, a retrospective report without a control group for comparison, is without statistical validation. The only endpoint in the study is whether the surgeon complained of extrusion of eye contents. No mention is made of difficulty with uveal prolapse, bleeding, or reformation of the globe. There is no information regarding