Correspondence

Screening for sickle cell disease in children with cleft lip and palate

To the Editor:

We read with interest Crawford and co-workers' study¹ describing the effectiveness of preoperative screening of children for sickle cell disease (SCD) in an ethnic group (children of African ancestry). In this part of rural and tribal central India, SCD is highly prevalent in certain tribal and ethnic groups.² In regions such as ours where patients have limited access to medical facilities, the perioperative period may actually be a useful time to screen for SCD. Crawford *et al.* refer to the lack of follow-up and parental counselling as disadvantages of routine perioperative testing. This may be overcome by preoperative efforts to evaluate, investigate, and treat and/or follow-up patients with anemia by pediatricians or perioperative physicians.

In children presenting for cleft surgery, using anemia as a criterion to screen for SCD is confounded by nutritional anemia. In children with cleft lips and palates, anemia and failure to thrive (FTT) are well known complications of deficient dietary intake.³ Our experience suggests that both anemia and FTT occur concomitantly, and that the most severely affected children are in the pre-school years. Therefore, in children with cleft lips and palates, we screen for SCD when there is a disparity between the severity of anemia and FTT (e.g., anemia with no FTT) or when there is unexplained anemia in older age groups. Additionally we screen these children for SCD if there is severe anemia (hemoglobin < 5 g-dL⁻¹), past symptoms, clinical features or family history of SCD,⁴ or if patients belong to the above-mentioned indigenous populations.⁵

We agree with Crawford *et al.*'s statement that the risk of a well-conducted general anesthetic in the asymptomatic child with undiagnosed sickle cell disease is probably low, especially when factors that precipitate erythrocyte sickling are avoided (anemia, acidosis, dehydration, hypoxia, hypercarbia, hypothermia and stress responses). We further note that these authors state that perioperative sickle-related complications occurred only in patients who had a longstanding history of sickle cell disease, and who were undergoing surgery (cholecystectomy or splenectomy) for related complications.

Despite these reassurances, further studies are required to determine the effectiveness of preoperative screening for SCD in our part of the world (with SCD in certain populations) and especially in children with a high incidence of nutritional anemia (with cleft lips and palates).

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Reply:

We would like to thank Dr. Eipe *et al.* for their interest and comments on our article on preoperative screening for sickle cell disease. As they correctly point out, in areas where access to medical facilities is limited and sickle cell disease is prevalent, the preoperative period may be a useful time to screen for this hemoglobinopathy. This may be helpful for long-term health care and counselling, but the benefit of such screening with regard to perioperative outcome has yet to be established. For the reasons cited in our study,¹ the potential benefit of universal preoperative screening in terms of perioperative outcome is questionable in our population. We agree with Dr. Eipe

et al. that preoperative screening should be performed in selected at-risk patients, including those with known or suspected anemia or a family history of sickle cell disease, and those undergoing high-risk surgery, as stated in our study. We do not question the role of screening in public health. However, to have the greatest impact on public health, screening should be performed in the newborn period. Early identification of sickle cell disease through newborn screening, together with comprehensive follow-up health care and education, has significantly reduced sickle-related morbidity and mortality in children.² Consequently, legislation mandating universal screening of all newborns for sickle cell disease has been enacted in many parts of North America. Universal screening of all newborns should be a societal goal in populations where sickle cell disease is prevalent.

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The modified Eschmann guide to facilitate tracheal intubation using the GlideScope

To the Editor:

While recognizing the emerging role of the GlideScope® (Saturn Medical, Burnaby, BC, Canada) for both routine and difficult airway management,^{1–5} a persistent limitation of the device is that the videolaryngoscope blade is angled in such a way that it may be difficult, or occasionally impossible to pass the endotracheal tube (ETT) through the glottis. In an attempt to solve this problem and facilitate intubation, accessories such as the Mallinckrodt Satin-Slip® Intubating Stylet (Tyco Healthcare Group LP, Pleasanton, CA, USA) and the Parker Flex-It-Stylet (Parker Medical, Englewood, CO, USA) have been developed. Our team uses the GlideScope together with a new accessory, the modified Eschmann guide.

FIGURE 1) Eschmann guide; 2) Modified Eschmann guide.

The conventional guide consists of a flexible 0.5 cm × 50 cm stylette with a 45° distal angle. It is a non-traumatic guide made of woven polyester with a resin coating that provides strength and flexibility at body temperature. Because of its elastic properties, however, the conventional guide tends to resume its linear form shortly after it has been configured to patient requirements. The modified guide solves this problem satisfactorily. Its dimensions and characteristics are similar to those described above, but instead of a hollow design it includes a 1-mm steel wire core that provides the device with a memory feature, making it retain its desired shape during manipulation in the oropharynx. The anesthesiologist can thus shape the guide by curving it into the most suitable configuration to achieve glottic access. Once access to the glottis is achieved, the ETT easily slides over the guide during visualization with the videolaryngoscope. After entering the trachea with the distal tip of the ETT, the guide is removed. During removal, the guide slides back within the walls of the ETT and resumes its initial shape, behaving like a conventional elastic element that facilitates smooth extraction.

We recently undertook a clinical evaluation of this new device to test its effectiveness. After obtaining Ethics Committee approval, a group of five anesthesiologists experienced with the GlideScope and the modified guide for endotracheal intubation (ETI), studied this device in 40 randomly selected surgical patients. Of the 40 patients, five had a thyromental distance of less than 6 cm; six had a sternomental distance of less than 12 cm; three had a body mass index of more than 35; and three had limited cervical