

PARENTAL PRESENCE FOR INDUCTION OF ANESTHESIA

I. PARENTAL PRESENCE VERSUS OTHER TECHNIQUES

- a. There are many methods by which to coax a child into the operating room. Historically, this occurred by admission the night before and a sedating IM cocktail on the floor “on call to the OR”; a sleepy child was then brought into the room and induced. Several things have transpired to make these methodologies obsolete. Obviously, most children are operated on as same day surgery patients; economic and societal realities today preclude admission and sedation on the floor. Clinically, a sedated, transported child is at risk for airway obstruction or apnea. Today, two primary techniques, or some combination of the two, exist to get children into the OR. The first is pharmacologic sedation, most typically oral midazolam. This is discussed elsewhere. The second is attempted behavioral modification in order to allay a child’s anxiety, both through attendance at a preoperative program and/or by parental accompaniment into the operating room. Kain et al. (2007), studying 408 child-parent pairs, evaluated these various combinations, including neither sedation nor anxiety reducing methods. Group one children received no special treatment (no behavioral preparation, parental presence, or sedation); group two had parental presence; group three had an extensive preoperative/holding unit program plus parental presence, and group four received oral midazolam only. Not surprisingly, children with extensive preoperative preparation plus parental presence had the lowest anxiety in the holding unit and lower anxiety in the OR upon induction than children who had parental presence alone or who had no preparation. Anxiety and cooperation in the extensively prepared group was similar on induction to the midazolam group. Interestingly, children receiving the comprehensive program also had less emergence delirium, required less postoperative analgesia, and had an earlier PACU discharge as well. (See a separate discussion of preoperative programs elsewhere).
- b. Other groups still advocate preparation primarily by pharmacologic techniques (Bailey and Bastien, 2005)

II. PARENTS WANT TO BE IN THE OPERATING ROOM

- a. Ryder (1991) - One hundred and forty-one parents were asked to complete a questionnaire about their reactions after accompanying their child during induction of anaesthesia. Of 139 respondents, 99% believed that their presence was of benefit to their child, and 95% believed that they helped the anesthetist. The degree of

anxiety experienced by the parent did not significantly affect this view.

- b. Our own data suggest that nearly 100% of parents of 3-10 year old children desire to be present at induction. Even after witnessing an induction and becoming upset, virtually all say that they would like to be present in the future if their child requires anesthesia. The problem is that it is virtually impossible in a non-research setting to select those parents who we deem are “anxious” and ask them not to accompany their child. This makes it an imperfect system, but one which we feel, on balance, is beneficial.

III. PARENTS MAY HAVE SIGNIFICANT ANXIETY ASSOCIATED WITH INDUCTION

- a. Vessey (1994) -To evaluate the magnitude of parental upset associated with (1) the features of induction most upsetting to parents; (2) the characteristics of parents most likely to become upset; and (3) the accuracy of the anesthetist’s perception of the magnitude of parental upset. The parents (101 mothers and 43 fathers) of 103 children scheduled for elective outpatient surgery requiring general anaesthesia with induction by mask were asked on admission to participate in this study. Parents and children were educated about anesthesia and surgery according to unit protocols. Immediately after induction of anaesthesia, the parents were asked to complete a demographic information sheet and the Parental Reactions to Anesthesia Induction Questionnaire. Responses were analyzed using descriptive statistics and content analysis. The most upsetting factors for both mothers and fathers in order of significance were: (1) separation from the child after induction of anaesthesia; (2) watching/feeling the child go limp during induction; and (3) seeing the child upset before induction. Characteristics of parents most likely to become upset revealed positive correlations between the amount of upset between mothers and fathers, mothers of an only child, and mothers or fathers who were health care workers ($P < 0.05$). The anesthetist's perception of upset correlated with maternal ($P < 0.05$), but not parental, self-assessment of upset. We conclude that selected factors of parental participation are upsetting for the parents and that recognizing the factors associated with parental upset may enable operating room personnel to minimize these negative consequences.
- b. Kain et al. (2006), studying 568 patients, found that the presence of a calm parent does benefit an anxious child during induction of anesthesia and the presence of an overly anxious parent has little benefit, even though the parent wants to be present. In fact, calm children who had parental presence with an overly anxious parent were significantly more anxious as compared to calm children who were not accompanied by any parent.

- c. Again, both our data and personal experience suggest that even though parents become upset as their child goes to sleep they prefer to be present. Parents believe that they are providing significant emotional support to their child as well as helping their own needs to have some control in the anesthesia process until their child goes to sleep.
- d. We have found that parental presence alone (without sedation) for 3-10 year olds is sufficient to calm children in about 85% of children. There is a small group of children who are not calmed sufficiently by parental presence. These children may benefit from preoperative sedation. We are trying to identify these children prospectively.

IV. HCH GUIDELINES FOR PARENTAL PRESENCE

a. CHILDREN LESS THAN 9-12 MONTHS OF AGE

- i. Below this age most children have not developed stranger anxiety. The child does not benefit from parental presence, but the anxious parent might have intense separation anxiety. We try and reassure parents of young infants that, because the child will not miss them, the child's best interest is served by saying goodbye in the holding area. We can then devote our entire attention to the infant when in the OR. Furthermore, separation is likely to be *more* difficult for the parent in the OR. However, some parents still insist on being present. Ultimately, it is up to the attending anesthesiologist to make a case by case decision for young infants.

b. CHILDREN GREATER THAN ONE YEAR

- i. In accordance with the "Parents as Partners" philosophy of Hasbro Children's Hospital, parents are encouraged to be present at the induction of anesthesia, whether it be via inhalation or intravenous technique.
- ii. Qualifications to this policy do, however, exist:
 - 1. Parent and child have not attended POP program. This is a "soft" contraindication, but a concession that was entirely agreeable to the Family Action Council of HCH (a parent pro-active group). The rationale is that an unprepared parent may prove detrimental to the induction process (see Kain, 2007). This "rule" is usually waived, since our goal is not to be punitive in this stressful situation; adequate preparation can

usually be achieved in the holding unit, often with the invaluable aid of Child Life staff.

2. Non-English speaking parent-Our goal is not discrimination, but safety; the inability to communicate to a parent has been viewed as a potential hindrance towards providing adequate care for the child. Again, this is a "soft" rule, usually waived on a case by case basis. If the family has attended POP, it is our goal to ensure that an English speaking family member (or interpreter) is available for induction.

3. Children at risk for aspiration

c. EMERGENCY CASES

i. These are not generally viewed as optimal for parental presence, due to high stress and a concern for mishap during induction. However, these are situations that warrant parental support. A reasonable compromise is to bring a parent into the OR until just prior to induction (monitors on, denitrogenation etc.), and then have the parent leave just as induction is begun.

V. PARENTAL PRESENCE AT INDUCTION: SUMMARY

a. We are strong advocates of parental presence for induction. Quite simply, parents deserve the privilege of drying their own child's tears. Once it is customary, having a parent in the room during induction becomes not only comfortable; it promotes a great deal of professional satisfaction.

VI. At the national AAP/SPA meeting in February 1995, pediatric anesthesiologists responded electronically to a series of questions. A total of 136 responses to the question of parental presence at induction (in children older than 1 year of age) revealed that only 45% allow it as much as 5% of the time, and 43% allow it in <1% of instances. 28% of respondents allow parents in the OR >75% of the time.

VII. As noted, parent education and preparation is *crucial*; following is our parental presence information sheet. This is handed out at the POP program.

References

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