The Tablet Computer: A New Distraction Technique to Manage Preoperative Anxiety in Children

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Objective:
To share our experience of using the tablet computer in the preoperative period.

Background:
Children are at risk for having increased anxiety during the preoperative period and during induction of anesthesia. Over 2 million ambulatory anesthesia episodes are provided annually to children under 15 years old in the United States (1).

Children are at risk of developing postoperative maladaptive behaviors such as separation anxiety, feeding difficulties, nightmares, and fear of physicians. This can last up to 6 months in 21% of children. The frequency is increased in children with anxiety during induction of anesthesia (2-4).

Pharmacologic and behavioral interventions can be used to reduce preoperative anxiety, enhance coping skills, and improve psychological and clinical outcomes associated with preoperative anxiety.

Methods:
In our institution, the tablet computer is frequently used by our Child Life Specialist as a distraction technique for children ages 3-8 in the preoperative period including induction of anesthesia. It is used to play games and show pictures of the operating room.

After obtaining informed consent, we observed children using the tablet computer throughout the preoperative period until loss of consciousness during induction of general anesthesia.

Results:
In our experience, children interacted well with the device, parents, and health care personnel throughout the preoperative period.

The children remained cooperative and tolerated inhalation induction well. This technique distracts them while anesthesia monitors and mask are being placed.

The children remained engaged in their game and did not display signs of anxiety and fear, such as crying, pushing the mask away, screaming, and fighting.

Conclusion:
In our experience, the use of the tablet computer is beneficial in management of preoperative anxiety in children including inhalation induction. Although our experience is observational, future studies can support the benefits of this technique and widespread inclusion of this modality to pediatric anesthesia.

Discussion:
Managing pediatric preoperative anxiety is an important component of the perioperative care given by anesthesiologists.

Distraction techniques with play and music have been researched and implemented in some institutions with varying degrees of success, in addition to parental presence and pharmacologic intervention. Distraction techniques with video games used during the preoperative and induction periods have shown to reduce anxiety (5).

With increasingly mobile, small, and easy to use electronic devices, children are learning to use computers, tablet computers, phones, and video game devices at a young age.

Benefits of a tablet computer are user friendliness, mobility, “fast onset”, free of side effects, and decreased anxiety during parental separation and induction of anesthesia.

References: