

Running Head: PREOPERATIVE ANXIETY IN PEDIATRICS

Dealing with  
Preoperative Anxiety  
In Pediatrics  
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### Preoperative Anxiety in Pediatrics

I attended the workshop on Perioperative Anxiety by anaesthesiologist Dr. Alayne Farries (personal communication, October 21, 2010) at the ORNAA Conference in Red Deer, October 2010. Her focus was on the very anxious preoperative adult patient relating mostly to preoperative teaching with a small amount of discussion pertaining to pediatrics. As a pediatric OR nurse, this peaked my interest in pediatric anxiety and the immediate preoperative period (where OR nurses have an influence) but it was difficult to find much research on this topic. Two areas of research that I did find relating to preoperative pediatric anxiety were sedation (usually Midazolam) and/or having a parent present during induction of anesthesia. These approaches are used at Alberta Children's Hospital (ACH) Operating Room (OR) (as per anaesthesiology decision) as well as distraction, connection and the "window of opportunity" of which I didn't find any literature on or on any other approaches.

An OR nurse deals with patients at some of their most anxious moments with only a short amount of time to make any impact. Most adult patients are somewhat prepared and have an understanding of what they are going through and why; this is not necessarily the case with the pediatric patient. Some degree of anxiety is generally associated with any preoperative patient but the pediatric patient deserves special consideration. This population (birth to age eighteen) is diverse and not only because of the different stages of growth and development. Separation anxiety begins at seven to eight months with a peak of about one year of age. (McCann and Kain, 2001) Between the ages of one to five years is a period which is the greatest risk for developing extreme anxiety (McCann and Kain, 2001). The pediatric's own life experiences and

temperament, as well as their parents (or caregivers) experiences, how informed the patient and his family are, the ability to communicate (including language spoken) and cultural differences all have an influence on anxiety and how it is manifested. As well as dealing with the child's anxiety, the anxiety of the parents must also be taken into consideration. Decreasing a parent's anxiety can do a lot to lessen the child's.

Preoperative anxiety activates the human stress response as does pain and cold (McCann, and Kain, 2001). Stress triggers the hypothalamic pituitary-adrenal axis, increasing circulating glucocorticoids and is related to alterations of immune function and susceptibility to neoplastic disease and infection; this is not only important in the immediate situation but also for healing (McCann and Kain, 2001). Children are particularly susceptible to global stress response due to larger brain masses, limited energy reserves, and obligatory glucose requirements (McCann and Kain, 2001); therefore, it is important from a physiological as well as a psychosocial aspect to decrease preoperative anxiety.

Anxiety itself can be slight to overwhelming and can depend on the surgery involved (minor, major, or emergent). Anxiety in pediatrics can also be manifested in different ways, often in negative behavioural changes preoperatively and postoperatively (McCann and Kain, 2001). Some of the behaviours seen in the preoperative period include anything from being withdrawn, avoiding eye contact, refusing to speak or being very talkative, clinging to parents, becoming combative, crying, or yelling, and sometimes transitioning through a few of these behaviours. Generally speaking, children are very open and honest with their feelings and expression of them. As OR nurses, it

can be quite challenging at times to make the experience as least anxiety provoking as possible.

Usually the first contact with the patient for the OR nurse is in the holding area just prior to surgery; not the most conducive place to attempt to build trust. The fact that many of these children may already have had a negative experience with hospital personnel (such as blood tests) can also add apprehension. Time is also a factor as there is usually only five to ten minutes before going into the operative theatre. If the child has had a premedication then contact is made in Day Surgery and the child is accompanied straight to the operating room without a parent; depending on how well the premedication has worked this can be a smooth or very stressful transition for the patient.

The use of a premedication is at the discretion of the anaesthesiologist and in my experience, used for the extremely anxious and/or those with other medical issues (such as autism or multiple previous surgeries). Literature supports that patients with a premedication have less anxiety and fear during induction and that it did not seem to affect post-operative stay in Day Surgery (McCann and Kain, 2001). McCann and Kain (2001) also explain that studies have shown that if a child has had a premedication that it was not any more beneficial for the child to have a parent there as well (though it did decrease the parent's anxiety) as the premedication did an excellent job of decreasing anxiety itself. Generally in my experience at ACH, premedication is not used on a regular basis or often though possibly more children would benefit from the use. This observation is supported by a discussion with Dr. David Lardner, an anesthesiologist at ACH (personal communication, January 17, 2011) who suggests that the national average

for premedication is approximately 30% of pediatric preoperative patients while use at ACH is less than 10%.

The other approach that literature offered was on the benefit of having a parent present for induction and research suggests the benefits depend on the growth and development of the child. According to McCann and Kain (2001), younger children going through the stage of separation anxiety definitely seemed to benefit from parental presence. Kain et al (2000) found that parental presence during induction of anaesthesia did not improve a child's compliance or reduce anxiety any more than with a midazolam premedication; it did however, improve the parents' anxiety and increase satisfaction. Most parents felt they were of some help though evidence does not support that (only 12% as per anaesthesiology; my experiences would support that number) (Kain et al, 2000). Some of the concerns with having a parent present are that they may make the induction more difficult (Kain et al, 2000) disrupt the OR routine, or there may be a potential adverse reaction from parents (McCann & Kain, 2001).

As a nurse there are a few things which can alleviate some anxiety for the pediatric patient. Preparing the OR theatre ahead of time by having induction apparatus ready, positioning aides available, etc., can be extremely helpful. There is a small "window of opportunity" before anxiety may escalate as the reality of undergoing surgery or separation from a parent takes place; by having the OR ready the focus can be on the patient and induction. The use of distraction is another tool which can be used and is helpful. In younger children, visual distraction works extremely well, diverting attention to something else. In older, more verbal children, finding an area of interest is often helpful (asking questions regarding the toy they brought in, what activities they like, or

about their siblings) gives them something different to focus their attention on. Some children become silent when anxious but it is still helpful to keep talking to them, either telling them a story or focussing on events after the surgery (e.g. popsicles in recovery, watching a movie or TV after). A calm voice can be quite soothing; it does not matter that much on the topic. One of our anesthesiologists tells great stories often about not much at all (putting on nail polish for example) but his voice is so calm and inviting it draws you in and makes you want to listen. Depending on the age and development children can also be given some choices as to their induction; an intravenous or mask induction, the flavour to go in the mask, or perhaps even whether to sit or lie down (though this may depend on the anaesthesiologist or the size of the child). Having some choices also gives them a bit of control in a situation where they may feel that they don't have any.

Other than using a premedication and/or parental presence to decrease preoperative anxiety, other approaches tend to be learned from personal experience and a sensitivity to what a child needs at that moment to help them deal with their anxiety. Distraction, connection and using the “window of opportunity” are used a lot at ACH with good success. Parental presence is also used quite often and seems to be helpful in some situations. There is no standardized approach as each child is very individual. As a team we all work together (nurses, anaesthesiologists and respiratory therapists) to try to make the transition as least stressful as possible for this diverse population who are not just “small” adults. At times I am quite amazed by their unique & creative way of looking at things and dealing with their own anxiety. I once had a young girl who told me she was “Christine Aguilera” today, it helped her get through by being someone else

who she felt was strong and could handle it; never underestimate the power in these little (or not so little) people.

References

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