Preoperative Nursing Care to Reduce Anxiety of Parent from Cancer Patient in Paediatric Surgical Ward

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Abstract

Objective: Cancer or malignant tumors are one of the most experienced diseases in the world. The therapy to treat cancer requires a comprehensive examination, one of which is by doing a biopsy. Biopsy is a procedure that can cause anxiety in parents of children with cancer. One of the way to reduce anxiety in parents of children with cancer is to do preoperative education. The purpose of study was to determine the effects of preoperative education on anxiety in parents of cancer patients.

Methods: This was a case study of preoperative care to reduce anxiety of parents whose child has cancer and will undergo a surgery. The intervention included anticipatory guidance and preoperative education. Anticipatory guidance was given by actively listening to parents and child’s concerns and assist them to learn deep breathing relaxation techniques, and distraction. The preoperative education was given using a flipchart containing information pertaining to the location and time of surgery, preoperative preparation, surgical procedures, and postoperative care.

Results: Parents’ anxiety declined from the score of 7 to 3. She also expressed the feeling of relieved. She looked calmer, focused and made eye contact.

Conclusion: Patient education along with anticipatory guidance needs to be provided by nurses during preoperative stage to reduce both parents and patients’ anxiety.

Key words: cancer, anxiety, parents, preoperative education

Introduction

Cancer is a growing cell or tissue that continues to grow or increase and is uncontrolled¹. Cancer can be divided into sarcoma and carcinoma cancers. Sarcoma cancer is a cancer that originates from connective tissue, muscle, or bone. While carcinoma cancer is a cancer that originates from the gland, organ cavity, the outermost layer of skin where blood vessels appear².

Cancer is a disease that is widely experienced in the world. It is estimated that in 2012 there were 14.1 million new cancer cases appeared. In addition, cancer is also one of the leading cause of death in the world with 8.2 million deaths in 2012³. Cancer does not only occur in adults and the elderly, but also in children.

Childhood cancer is rare. In Indonesia, the prevalence of cancer begins to increase in the age 15 years and reaches the highest rate at the age of 75 years. Meanwhile, the lowest cancer prevalence is in children aged 1-14 years⁴.

This data is relevant with the condition in the paediatric surgical ward at Dr. Cipto Mangunkusumo from January 1st, 2018 to March 9th, 2018. There were 10 out of 228 patients diagnosed with cancer. This could occur because the age of children is not enough to make carcinogens cause cancer⁵. Although cancer in children is less in prevalence than adults, cancer in children cannot be underestimated.

Cancer is one of the main causes of death in children⁴. In the world there were 96,400 children died because of cancer in 2014. Meanwhile in Indonesia there were 16,291 children died because of cancer³. This data showed that cancer is one of the diseases that must get a lot of attention to prevent death in children.

Child mortality due to cancer could be prevented. More than 80% of children diagnosed with cancer could survive². This is due to the increasing number of therapies that could be given to treat cancer and children are more tolerant of these therapies than adults². Cancer therapies
that could be given are surgery, chemotherapy, radiation therapy, hematopoietic stem cell transplantation, and biological response modifiers. One therapy that is often used to treat cancer is surgery.

Surgery is the oldest, most effective, and widely used method to treat cancer. There are more than 60% of people can recover from cancer using only surgery. Not only that, in the other method that is used in the other 40% cases, surgery become the largest part of the curative effort. Surgery is not only carried out for curative efforts but also for examinations through biopsies.

Nevertheless, surgery may cause anxiety both for children and their parents or family. Anxiety in the majority of children occurs due to anesthetic procedures. Meanwhile, anxiety in parents can occur due to anesthetic procedures, surgical procedures, and hospitalization. Anxiety in patients could lead to the increased post-operative pain, increased risk of infection, and longer healing time. Therefore, the level of anxiety in children must be reduced by reducing the level of anxiety in parents.

In the paediatric surgical unit of National Center General Hospital (RSUPN) Dr. Cipto Mangunkusumo or RSCM, parents are involved in taking care of their children. This causes parents to always stay with their child for 24 hours. Anxious parents could lead to the increase of anxiety in their children, meanwhile if parents anxiety is lowered, this could result in a decrease in anxiety in children. Therefore, reducing anxiety in parents is important.

Preoperative educatio is a strategy that may reduce parental anxiety during preoperative. It could increase parents’ knowledge about the surgical process and its subsequent expectations, so that it could reduce anxiety in parents whose children will undergo surgical procedures. Preoperative education could be done in various ways, one of which is done verbally through effective communication with flipchart media.

Effective communication during preoperative is important to deliver information in a better way. Preoperative education is expected to reduce preoperative anxiety in parents who have children with cancer.

**Case Report**

MNH (age 7 years 4 months, male) entered the Paediatric Surgical Unit on May 8th, 2018 with a medical diagnosis of Maxilla Dextra Suspect Malignant Tumors (T4aN1M0). There was a 1 cm diameter bruised in patient’s cheek because he fell while playing soccer, but since 7 months ago it grew bigger. There is no family member who have the same history as this patient. The patient was planned to have a biopsy and debulking. The assessment was conducted on May 8th, 2018, on the first day of the patient hospitalization. The patient is the only child of the couple, Mr. S and Mrs. T. When the patient was examined, the patient looked silent, avoided eye contact, and said he was afraid of being injected and operated on. Mrs. T said that when he was in the hospital the child became more quiet even though he was active at home.

The patient was born prematurely aged 30 weeks by caesarean section with birth weight of 1600 grams and body length of 47 cm. APGAR score was unknown but according to Mrs. T, when the patient born he immediately cried. The patient had a complete immunization history but only received formula milk since he was born. The patient usually eats 3 times per day and his favourite food was chicken. However, since the tumorous cells enlarged 4 months ago, the patient felt bloated his appetite decline accordingly.

The patient reported no pain on the tumour site, but the tumour caused inconvenience especially when the patient is eating. The tumour cells also caused the gum enlarged and the structure of the patient’s teeth changed. The patient preferred eating soft foods, like porridge.

The patient usually sleeps for 9 hours and naps for 2 hours. He defecated once per day, but he reported constipation within the last three days with bowel sounds were 5 times per minute. His food and fluid intake was relatively low. The patient also reported abdominal pain on a scale of 2. The patient described the pain occurred only during defecation and diminished after it was done. The pain was felt especially on the lower left abdomen, but not radiating to any other body site. It also diminished when the patient applied warm essential oils. The patient felt no pain when the abdomen was palpated.

The patient’s body weight dropped from 23 kg to 17 kg within four months. The patient’s height was 121 cm. His upper arm circumference was 16 cm. The patient was on 70.8% percentile or was categorized within poor nutritional status. The patient’s fluid intake was 600-700 ml per day. He urinated normally, with the frequency of more than 5 times per day.

The patient’s laboratory results showed that the patient’s haemoglobin was 13.2 g/dL; hematocrite was 38.4%; erythrocytes was 5.03 x 106 / μL; platelet was 380 x 103 / μL; leukocytes was 7.69 x 103 / μL. Electrolyte laboratory results showed that the patient’s natrium was 131 mEq / L Na (normal value: 132-147 mEq / L), kalium was 3.86 mEq / L (normal 3.30 - 5.40 mEq / L), Cl was 93.7 mEq / L (normal 94.0-111.0 mEq / L). Furthermore, the patient’s blood creatinine was 0.40 mg / dl (normal) blood urea was 11 mg / dl; SGPT / SGOT were 18 U / L / 30 U / L (normal); blood glucose 81 mg / dL (normal). The patient’s urine specific gravity was 1.010 (normal 1.010-1.025). The patient’s albumin was 4.60 g / dl (normal).

X-rays on April 10th, 2018 showed no radiological abnormalities in the heart and lungs. CT-scan results on March 27th, 2018 showed heterogeneous masses in the maxillary sinus; multiple KGB bilateral level I, II, III and IV coli regions with the largest short axis diameter +/- 1.2 cm at level III left; connection in the right-left frontal sinus, left ethmoidalis, left sphnoidalis, and left maxillary DD / sinusitis.
The results of the physical examination on May 8th, 2018 showed that the general condition was comos mentis, blood pressure was 120/82 mmHg, pulse was 120 times / minute, temperature was 36.6°C, respiratory rate was 20 times / minute. The patient’s conjunctiva was not icteric, the sclera was not icteric, the right eye was often excreted. The right nostril was covered in mass but does not interfere with breathing. There was an enlarged mass in the right mouth that changed the structure of the gums and teeth. The patient had mouth odor and oral hygiene was poorly performed. The patient had normal ear functions, and reported no pain or ringing sounds. The patient had no pain on the nape of the neck, and no swelling or lumps on the neck area. The chest looked symmetrical with no signs of retractions. Heart S1 and S2 sound were normal with no murmur or gallops. Lung sounds were vesicular equally on both right and left sides with no additional breath sounds. Abdomen looked intact with no distention, injuries, or scars. Bowel sounds were 5 times per minute.

The mother who accompanied for 24 hours seemed worried about the condition of her child. Mrs. T wanted to know about her child's treatment, from surgical procedures to postoperative care. Mrs. T said she was worried about anything that might happen when her child was operated and would like to know about the experience of previous patients who had been operated with the same case with her children. Mrs. T also seemed confused about what to do to treat children before and after surgery. After being assessed using GA-VAS, it was found that the mother's anxiety scale was at the value of 8.

### Results and Discussion

There were three preoperative nursing problems identified in the patient. They were Constipation, Imbalance nutrition: Less than Body Requirement, and Anxiety. Nursing interventions performed to address the nursing diagnosis of Constipation included assessing the patient’s defecation pattern (time, consistency, color, and the amount of stool), suggesting patient to eat high-fiber foods, ensuring that patients have adequate fluid intake, assessing bowel sounds, giving warm water after eating, teaching non-pharmacological pain techniques to reduce abdominal pain, and providing collaborative interventions by administering medication. After the interventions were implemented on May 9-14, 2018, it was found that the child was eventually able to defecate soft and brownish yellow stools The patient reported no pain during defecation. His food and fluid intake increased gradually. Bowel sounds increased into 8 times per minute. On May 12, 2018 the child had a 5-scale pain, then reduced to 2 after being given Paracetamol 500 mg.

The implementation of nursing interventions to address the nursing diagnosis of Imbalance Nutrition: Less Than the body requirement included the assessment of patient’s anthropometric appetite, nausea and vomiting, monitoring the patient's laboratory results, carrying out a physical examination, dietary recall, identifying nutritional status, assessing the causes of malnutrition, suggesting to increase the preferred food intake, suggesting to increase fluid intake, providing motivation to increase the child's appetite, doing oral hygiene every morning and evening, and suggest eating snacks at large meal times. Patients’ families are also involved in interventions so that children are more motivated to eat.

The evaluation of interventions for the diagnosis of Imbalance Nutrition: Less Than Body Requirements on May 8, 2018 showed the improvement of child’s appetite as well as his fluid and food intakes, no signs of nausea, vomiting, weight loss, or reduction on upper arm circumference, and laborator results within normal values. On may 11, 2018, the patient had nausea and vomited 100 cc of yellowish white materials. Nausea management was carried out. On May 13, 2018, the patient’s mother reported that the patient’s appetite improved and he could finish his meals.

Nursing interventions to address the diagnosis of anxiety on the patient and his parents were anticipatory guidance and preoperative education. Anticipatory guidance included building trust, listening to the patient’s and his parents’ concerns, understanding distress experienced by them, assessing their anxiety level, demonstrating and requesting them to practice deep breathing relaxation techniques and advocating the patient to practice distraction techniques through audiovisual games on the patient’s mobile phone.

Preoperative education was performed two days before the surgery using flipcharts containing the information regarding location and duration of surgery, preoperative preparation, surgical procedures, and postoperative care. We assessed the patient’s anxiety using modified GA-VAS with 0-10 value before and after the intervention.

After anticipatory guidance, preoperative education is carried out on parents (mothers) using flipchart. Anxiety assessment uses the GA-VAS instrument that has been modified by placing the 0-10 number done before and after the preoperative education. Preoperative education was carried out two days before the operation was carried out. Preoperative education is carried out using flipchart media that contains the location and time of surgery, preoperative preparation, surgical procedures, and postoperative care. The assessment on May 12-15, 2018 showed that the patient’s and his parent’s anxiety reduced. The patient looked calmer, focused, made eye contact, blood pressure and heart rate were within normal value (BP 110/75 mmHg, and HR 90x / minute). Similarly, the patient’s mother reported that he was less anxious, and the anxiety value decreased from 7 (0-10, GA-VAS) to 3 (0-10, GA-VAS) after preoperative education.

Anxiety may occur among patients’ parents who look after their child in the hospital for 24 hours, particularly associated with anesthesia and surgical procedures as well as hospitalization experienced by their child.
Anxiety in parents may give an impact to the child’s anxiety. Anxious parents can make their children anxious, whereas parents who are not anxious can make their children calmer and less anxious. Anxiety in parents may affect the child’s anxiety. Thus, overcoming the patient’s and parents’ anxiety is of importance to help the treatment works optimally. Preoperative education is a way that may help nurses to reduce patients and their parents’ anxiety.

Preoperative education is one of the key interventions prior to surgery procedures. It can reduce parental anxiety (Hatfield, 2007). It does not only improve knowledge but also reduces anxiety in parents by giving an idea that the causes of anxiety could be overcome. Education can further reduce anxiety and increase satisfaction by using verbal and written education compared to using regular verbal routines. Anxiety in Mrs. T is overcome by preoperative education using a flipchart regarding preoperative information, surgical procedures, and postoperative care in MNH children. After education using flipchart on two days before surgery, mother’s anxiety decreased from 7 (scale 0-10) to 3 (scale 0-10) using a GA-VAS scale. This showed that education could reduce anxiety in parents. The same preoperative education intervention was carried out on parents of patients with other cancers, Mrs. S and Mrs. H. Before preoperative education was performed, the value of their GA-VAS score was 5 (scale 0-10) for Mrs. S and 8 (scale 0-10) for Mrs. H. After preoperative education using flipchart, Mrs. S GA-VAS score dropped to 1 (scale 0-10) while GA-VAS score of Mrs. H dropped to 6 (scale 0-10). These data show that the results of preoperative education for three patients showed different results. These results varied since the causes of anxiety experienced by each patient differed, not only due to surgical procedures. Mrs. S had 5 GA-VAS and dropped to 1 because she learned that surgical procedures can solve her child health problems, thus her anxiety’s problem solved. Mrs. S said that after the education she became calmer and happy because her child would soon be free from the disease by surgery without the need for additional therapy. Not only that, Mrs. S also said that she would think positively and dhikr every time she experienced anxiety, so that her stress could be reduced.

The stress level experienced by Mrs S declined because her GA-VAS score was lower than Mrs T and Mrs H. High stressors could increase anxiety, while low stressors could reduce anxiety levels. In addition, preoperative education in Mrs. S caused Mrs. S to understand preoperative care, surgical procedures, and postoperative care better. Understanding the cause of anxiety through preoperative education may help reducing the anxiety levels.

Unlike Mrs. S, Mrs. T and Mrs. H had a higher level of anxiety before the intervention. Mrs. T and Mrs H said that they were anxious about the length of hospitalization and post-surgery therapy that was not yet explained by the healthcare providers. Mrs H also said that she concerned about the enlargement and bleeding in the tumorous cells of her child. Hospitalization and unclear information about diseases in children can increase parental anxiety. Therefore, Mrs. T and Mrs. H have higher levels of anxiety than Mrs. S.

Preoperative education in mother T and mother H was done to reduce anxiety due to surgical procedures. After preoperative education, their GA-VAS values reduced. However, the preoperative education could not eliminate the anxiety of Mrs. T and Mrs. H nor reduce it to 1 score as in Mrs. S. This might be caused by the initial GA-VAS scores of Mrs. T and Mrs. H which were higher than Mrs. S, and because preoperative education could not solve the problems faced by Mrs. T and Mrs. H as a whole. However, preoperative education was successful to reduce the anxiety of Mrs. T and Mrs. H according to the criteria that has been created before.

Conclusion

Anxiety may occur in patients and their parents due to inadequate information and knowledge regarding perioperative care and surgical procedures. The provision of preoperative education could be an effective way to help reducing the parents’ as well as the patient’s anxiety level.

References

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