



NURSING CARE: CHILDREN AND YOUNG PEOPLE

Introduction

In this assignment, the chosen patient is a child of ten years named Alex (the name of patient is changed) who is suffering from appendicitis. Alex is the only child of this parents (name has been changed here). The condition of this disease is complex as there are problematic symptoms such as abdominal pain along with tenderness that hurts more during coughing (Snapiri et al., 2020) as well as sneezing which are manifested in such patients. Such patients require immense care from their caregivers and parents. Nurse also has an important role in assessing the patient with appendicitis and efficiently manages the care. Owing to the nature of the illness, proper nursing intervention is needed so as to assist the parents in caring for the patient and also support the patient.

Appendicitis is caused due to the inflammation of the finger like pouch that is projecting from the colon on the lower part of the right region of the abdomen. It causes severe pain in the lower right abdomen. There can be nausea, vomiting and a loss of appetite, high grade fever, along with problem in passing gas and swollen stomach. In the given case, the nursing intervention is required for properly managing the acute illness. Medication as prescribed is administered by the nurse and nonpharmacologic treatment is also given to Alex.

Epidemiology

Appendicitis is the infection of the pouch like organ present in the intestine called as appendix. It is a vestigial organ but sometimes bacteria enter into it and multiply rapidly which presents as an infection. It is the most common cause for a child to require an emergency abdominal surgery. Appendicitis is the cause of an acute abdominal pain which is most commonly found in United Kingdom. It is most commonly found in the individuals aged 10- 20 years however, it can occur at any

age. It is more common in males than in females in UK and also across the world (D'souza, & Nugent, 2016).

Studies have noted that many of the patients get their appendix removed due to incorrect diagnosis. Therefore, it is important to correctly diagnose the appendicitis (Marzuillo, et al., 2015). The correct diagnosis is based on the clinical assessment and experience. It may be difficult for conducting diagnosis as the scoring systems have been shown to be important in ascertaining the need for further investigation and treatment of an acute appendicitis. Alvarado scoring system and modified Alvarado scoring system are commonly used for diagnosis of acute appendicitis (Shuaib, et al., 2017). It is used extensively in all the patients except the pregnant women.

Impact and implications on patients, family and the wider society

Appendicitis impacts the patients in many ways. The patients as an individual suffer from negative health outcomes. The common symptoms associated with appendicitis creates problems for the patients in the form of pain, vomiting, nausea, fever etc (D'souza, & Nugent, 2016). Further, the family has to act as a caregiver for the patient and incur the cost of health care services including surgery and medicines. The wider society is impacted as the appendicitis operation is often done on patients when it is not required (Wray et al., 2013). Due to incorrect diagnosis, there is wastage of cost and time of the people and the public health care services.

Statistics and impact on health care system

Statistically, in the UK this is the most common emergency operations. In the highly industrialised nations and the new industrialised nations there is an evolution in the appendicitis. In the Western countries the incidence of appendicitis is associated

with mortality, morbidity and huge costs to the health care system. One third of the appendicitis cases which are presenting in the hospital is of perforated appendix (Dian et al., 2011). According to Davis, (2019), there are as many as 80,000 hospital admissions in UK for suspected or diagnosed appendicitis in the people aged between 16 years to 45 years. The research study has suggested that nearly 5500 people get their normal appendix removed in UK per annum (RIFT Study Group, 2018). Hence, the appendicitis condition creates a significant burden on the health care system, families, caregivers and patients in UK (D'souza, & Nugent, 2016).

Health determinant

The patient's socioeconomic condition is one of the determining factors in the complex health condition of appendicitis. The socioeconomic condition of the patient and his or her family determines their approach to quality health care (Steinman et al., 2013). When good health care is provided then the correct reason for the abdominal pain is diagnosed and treatment is given. The incidence of removal of normal appendix due to incorrect diagnosis is thereby reduced. Further, the accessibility to health care is also dependent on the socioeconomic condition of the patients and their families. This is because, the poor people are not able to avail to health care services due to the higher cost of such surgeries. Hence, the socioeconomic determinant of health holds significance for the patients as it impacts their ability to access and avail good health care and thereby get proper treatment for this health condition.

Investigation

Investigation of this condition is very necessary so as to rule out the presence of other underlying causes which could be causing the pain in the right side of the abdomen. It is necessary to carry out proper diagnosis as studies have found that

many patients undergo wrong diagnosis (Zurynski et al., 2017). The nurses have a responsibility to correctly assess the pain by using scoring systems and scale so as to locate the right reason of pain in the right side of the abdomen.

Complete assessment is necessary to understand all the presenting symptoms of the disease. It is important for the nurses to conduct the complete assessment so as to find the out the health conditions like fever, vomiting, nausea, acute pain in the right side of the stomach, inability to pass gas, constipation, swollen abdomen, diarrhoea, malaise, migration of pain etc. The complete assessment is necessary to provide medications and other nonpharmacological intervention for dealing with the adverse condition. It is important to conduct a routine investigation of the patient so as to address the acute illness of the patient. The nurse is responsible for assessing the patient at routine intervals and then administer the health care intervention as required.

The acute illness of appendicitis alters the underlying physiology of the patient and this is related to the complex condition (Almaramhy, 2017). It is caused by the luminal obstruction luminally and this is usually secondary to the faecolith or a lymphoid hyperplasia, an impacted stool or rarely a caecal or appendiceal tumour. When it is obstructed then the commensal bacteria present in the appendix multiples and this results in acute inflammation. There occurs reduction in the venous drainage and hence, an inflammation is developed at the local region. This results in an increased pressure within the appendix and this is turn results ischaemia. This condition creates severe pain in the right side of the abdomen. Due to inflammation the patient feels nauseated and fever develops as the bacteria multiples. When this condition is not treated immediately with medication or surgery then the ischaemia

within the walls of the appendix could burst and this results in necrosis. This may finally lead to perforation of the appendix (D'souza, & Nugent, 2016).

The chosen routine investigation is the Alvarado scoring system. It is important to conduct routine investigation as the symptoms of appendicitis is overlapping with many other conditions. It makes diagnosis a challenge specifically at an early stage of the disease presentation. Patient may be triaged suitably into different alternative management strategies like reassurance, pursuit of an different diagnosis or observation and/or admission to a hospital. When the patient is admitted to hospital then appropriate imaging is done for proceeding with an appendectomy. The routine investigation was done by using Alvarado scoring system. It is based on the signs, symptoms and the diagnostics tests which the patients are depicting in the case of a suspected acute appendicitis. The use of this scoring system is beneficial for the patient as it allows for risk stratification in the patients who are suffering from abdominal pain. It helps in linking the pain with the probabilities of appendicitis for recommending about the observation, surgical intervention and discharge of the patient (Eskelinen et al., 2021). The chosen patient's condition can also be investigated using computed tomography and ultrasound scanning when there is a high probability of acute appendicitis in the intermediate range. This routine investigation was therefore part of the whole-body assessment of the patient as it helps in assessing the risks associated with the appendicitis condition. It helps in assessing the situation and also guides for undertaking further tests. It helps in taking the health care decisions pertaining to discharge, surgery, pharmacological intervention or observation while in hospital. Apart from it, the nurses also routinely investigated the surgical operation site for ensuring that the patient is not infected again and does not suffer from any complications.

Family-centred approach is needed for performing this routine investigation. It is achieved with a partnership approach to the health care decision-making between the health care provider and family. It is considered to be a standard for the paediatric health care by many healthcare groups, hospitals and clinical practitioners (Kirk et al., 2020). Family-centred approach is encouraged to perform the routine investigation. They are encouraged to take care of the surgical site in order to avoid infections of the site and hence prevent complications for the patient. The family of the chosen patient were communicated about this condition and the manner in which they can care for the patient. The communication was done in an objective, open and unbiased manner so that the right information is given to the family for performing routine investigation.

Management

The results of the routine investigation were interpreted. This result was gained from the Alvarado scoring scale. It was noted that Alex was experiencing excruciating pain which was migrating in his abdomen. The child was not able to bear the pain and was crying constantly. Therefore, medication was given to him by the doctors and surgery was recommended after getting the results of the sonography which was done as soon the appendicitis was suspected in the patient. However, till this time the pain has to be managed therefore, both pharmacologic and nonpharmacologic intervention were used for this patient.

On the basis of the results and the doctor's prescription medication was given to him. A nonpharmacologic intervention was given to Alex for relieving from pain in combination with administration of Non-steroidal anti-inflammatory drugs (NSAID) as prescribed by the doctors in the emergency department. The non-pharmacologic intervention was chosen because the action of the analgesic would take some time

but the child at this age was not able to bear the pain. Hence, for an immediate relief a non-pharmacologic intervention was chosen. This was the heat and cold treatment. According to El Geziry et al., (2018) the non-pharmacologic intervention of heat and cold therapy have been found to reduce pain and nausea. It is effective in the patients who are suffering from colitis, rectal trauma, cystitis, appendicitis, urolithiasis, mild trauma and cholelithiasis. The merits of using this intervention for Alex was that it has no side effects and can be used easily. Cold therapy is including a cool substance or object that is placed on the body part experiencing pain (Alalo, Ahmad, & El Sayed, 2016). Studies have shown that cold treatment can result in increase in the threshold of pain, suppress the inflammatory process and decrease oedema. In the case of Alex, cold compress was used between 15- and 30-minutes time scales and up to 2 to 3 times per day according to El Geziry et al., (2018).

Initially, my thoughts and feelings were very emotional for Alex. This was because it was disheartening to see a child of 10 years suffering from such pain. I could feel the sorry state of his parents. My initial thoughts were to find the best possible cure for Alex. Therefore, I looked for evidence-based intervention which also had minimum side effects. Hence, I located the nursing intervention of cold compress which has been shown to give relief from pain.

The chosen nursing intervention was given a priority of care at that present time. This was due to the following reasons. Firstly, it could be easily and immediately done. Secondly, it did not have any side effects on the patient. Thirdly, it could be done by the parents as well. Lastly, there is a large body of evidence which clearly establishes the use of this intervention. It has been used historically for treating pain of any type (Caiazza, et al., 2015). The cold compress is useful in the management of pain as the cold temperature reduces the blood flow to the identified area. This

reduces the inflammation and also reduces the nerve activity, hence relief from pain is obtained (Ozkan, & Cavdar, 2021).

The aim of using a cold therapy is to relieve pain of the patient temporarily. The planned outcome is to provide relief to the patient until the action of NSAID is started. Suboptimal analgesics have been found to be beneficial for the paediatric patients who have been suspected with appendicitis according to the research study of "Robb et al. (2017)". This nursing intervention will therefore help Alex in getting relief from the pain. The appendicitis is treated with the removal of the appendix hence, until the surgery is started, he has to be kept on the medication and with the help of the ice pack this condition was to be addressed. Therefore, the use of icepack helped in the reduction of the inflammation and pain (Somers, et al., 2020). In this way, the health outcome of proper pain management and relief was obtained for Alex on the basis of evidences generated from primary and secondary researches.

The nursing intervention is effective as this has been noted to bring relief to the patient (Rono, 2021). This intervention has been used for decades and has been found to be effective in joints, tendons and other forms of abdominal pain. Other interventions which are nonpharmacologic are massage, heat compress, etc according to El Geziry et al. (2018). However, cold compress is chosen over massage as this intervention is not prescribed when appendicitis is suspected. Heat compress also cannot be used in this pain as this intervention is mostly used for the joint pain and not for the abdominal pain. Therefore, cold compress is the best nursing care intervention which can be used for relief pain from the inflammation appendix effectively. This being a nonpharmacologic is of great advantage for Alex in contrast to the other available interventions.

Evaluation of nursing role

The role of a nurse in imparting a quality care is very important particularly in the paediatric section of a hospital. I have worked in partnership with the patient and the family for ensuring that Alex gets the best health outcome. I also worked with the interdisciplinary team across a range of settings for helping Alex and his family. I had educated his family how to use a cold compress on the region where he was feeling pain. I also partnered with the other health care professionals doing the diagnostic work like the sonography to get the results. This allowed me to help the patient in getting a proper diagnosis so that if surgery was needed then he could be cared accordingly.

From this exposure I have learnt many things. I have learnt the effective use of evidence-based practice. I have learnt that simple nonpharmacologic intervention like cold compress could be of immense use when the patient like him is under severe pain. For the future practice I have gained that it is very important to conduct a correct diagnosis. It is important to routinely investigate the patient for his presenting condition.

When dealing with paediatric patient it is important to work in partnership with the child and the family. This was evident from this case as it was an emergency condition. The patient was given analgesic until he was checked properly by a doctor on the basis of the sonography report. In this case the partnership with the child and the family was done to ensure that they understand the proper management of pain due to appendicitis and then after surgery are able to manage the wound. Therefore, in this partnership health related information was obtained from the parents and then they were educated about the proper handling of this condition in Alex.

The interdisciplinary team was including the general physician, diagnostic medical sonographer, nurses, pharmacists and surgeons. The team members have collaborated and coordination to provide a quality care to the patient. The team has been effective in giving accurate information to each other and helping each other complete their associated task linked with this patient. However, it could have been improved if proper leadership would have been provided by the practice supervisor. The practice supervisor would have led the team in properly managing the patient's pain by immediately carrying out treatment required for Alex.

This exposure has allowed for personal and professional development. Personally, I have learned that being a health care professional I have to act in the best interest of the patient. I have learnt the ways in which I have to partner and collaborate with the family and the other team members in the multidisciplinary team. At the professional level I have learnt the use of evidence-based practice.

Conclusion

It is therefore, concluded that this exposure has been very informative for me. I have learnt different ways in which I can provide best possible health care to the patient. I have learnt the ways in which I can approach and partner with the family.

Appendicitis is one of the most common reasons for abdominal surgeries including children. Hence, appropriate care is provided to the patient for getting relief from pain. It is important to conduct correct diagnosis so as to rule out the possibility of other causes of abdominal pain. I have learnt that the removal of appendix is necessary as it can burst if it gets inflammation. Then during the post-operative care the nurses have to educate the patient and the family for carrying out hygiene practices for preventing any infection of the surgical site. Hence, in this case, I have gained practical experience of managing pain in the younger patient.

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