Inflammatory bowel disease – nursing care during the surgery treatment period

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Abstract

Inflammatory bowel disease is highly associated with an option of potential surgical treatment. Variety of surgical methods require detailed and appropriate patient preparation for the operation.

In our study we tried to present some problems in dealing with patients with inflammatory bowel disease in aspect of perioperative period. We discussed methods of solving these problems and expected effects of nursing procedures.

Key words: inflammatory bowel disease, surgery, nursing.

Introduction

Ulcerative colitis (UC) and Crohn's disease (CD) are two separate units classified as inflammatory bowel diseases (IBD). These are the chronic diseases with changing course characterized by acuteness and remission periods. Etiology is still hardly known. Among the factors predisposing to inflammatory bowel disease development the main roles play: genetic factors (ethnicity, hereditary), environmental factors (smoking, diet, infections, drugs, stress), immunological factors (disorders of immunological system regulation, overproduction of inflammatory cytokines) [1,2].

Inflammatory bowel disease is more frequent in the developed countries rather than in Africa, Asia or South America. Morbidity is the highest between 20 and 40 years of age [1]. There's no significant difference in aspect of gender.

UC is described as chronic, recurrent and disseminate inflammation of colon mucosa with unknown etiology, localised in rectum from where it can spread out proximally to the other parts of colon [3].

Crohn's disease is characterized by inflammatory process of all parts of gastrointestinal tract's wall which predispose to narrowing, ruptures and fistulas. It is usually localised in terminal part of ileum but it can also be found in every part of gastrointestinal tract [1,4-6].

Clinical features of the both diseases are very similar in early stages. Predominating symptoms are stubborn diarrhoea with mucosanguineous or mucopurulent stools, non-specific abdominal pain and subfebrile states. Extraintestinal symptoms are also often. These include dermatitis and cellulitis, arthritis, narrowings in biliary tracts, changes in the liver, uveitis, aphtae, anaemia, thrombophlebitis and loss of weight [1,5].

Perioperational care

Consent to surgery is very important in every patient. This consent has a special dimension in case of chronic disease when surgery is often the life-saving procedure. Variety of surgical procedures in the treatment for IBD requires precise and accurate preparation of patient. Next to routine procedures, e.g.: preparation of colon, shaving the operating field or catheterization of bladder, the psychological preparation is also very important. Discussion with the patient and explanation of the main points of the procedure as well as thoughtful and kind care all have a significant influence on postoperative period. In case of colostomy important part is an additional preparation and allocation of the place for future ostomy [7,8].

Nursing problems in patients with IBD in pre- and postoperative periods, methods of solving and the expected effects of therapeutic and nursing procedures are shown in *Tab. 1* and *2*.

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Table 1. **Nursing goals in inflammatory bowel disease patients – a preoperative period**

Preoperative period		
Nursing problems	**Nursing procedures**	**Expected effects**
Patient's anxiety about hospitalization	On admission: – sincere conversation during the completion of admission documents – introduction to the nurse and the leading doctor – familiarization with the ward, introduction to the other patients – acquaintance with the ward regulations (visits, phone calls, schedule of the day)	Patient experiences calmness and increased sense of security and confidence in medical staff.
Discomfort because of chronic diarrhoea	– observation and documentation of stools (blood, mucous or pus dash) – protection of sheets and patients against soiling – privacy in patient's room, air-conditioning, single room if possible – prevention of dehydration and electrolyte misbalance – ordering of antidiarrhoic drugs – special diet rich in proteins and energy	Reduction of discomfort caused by diarrhoea. Correction of electrolyte misbalance.
Abdominal pain	– pain killers – comfortable in-bed position – peace and silence	Decrease of pain. Improvement of patient's mood.
Major malnutrition	– diagnosis of malnutrition (weight, hight, BMI) – laboratory tests (albumin, haemoglobin) – supplementation of nutrition deficiency – adaptation of enteral feeding to patient's condition – total parenteral feeding if indicated	Patient's nutrition betterment. Preparation for the operation.
Patient's anxiety about diagnostic tests	– physical and psychological preparation for testing – patient's consent for testing – ensuring the sense of security during diagnostic procedures, premedication if indicated, pain killers – observation of the patient and care after the diagnostic procedure – resting after the procedure	Patient's anxiety minimized. Positive attitude towards the treatment.
Anxiety about surgery and losing of selfdependence. Lack of informations about the surgery procedure.	– sincere care – giving detailed information about the surgery – nurse's consultation and explanation of the nursing care after the surgery (physical activity, diet, pain) – elimination of doubts and answering the questions – assurance of psychologist's consultation if necessary – physical and psychological preparation for operation – providing information about anaesthesia, sedatation drugs and premedication – allowing the contact with the family	Patient is acquainted with the treatment plan and possess general knowledge about the preoperative period. Patient is calm and informed consent for the surgery is given. The family support positively influences the sense of security.
Fears about having ostomy	– evaluation of patient's state of mind in the case of ostomy, encouraging for discussion, evaluation of the patient's state of knowledge and experience (relatives or other people with ostomy, leaflets, the internet) – dispersing of doubts – establishing of individual plan of care (localisation of the ostomy, self-care, out-patient procedures) – presentation of positive aspects of ostomy as a part of the treatment – presentation of the ostomy equipment	Patient has acquired the knowledge about ostomy and informed patient's consent is given.

We considered the most frequent problems risen by the chronicity of disease, severe patient condition and variety of surgical methods.

Integral part of perioperational nursing care in patients with IBD, next to the preoperative preparation and providing the postoperative supervision and ostomy care, is the patient education.

Learning process is an intentional influence on patient's personality throughout forming the health behaviour, responsibility of own health, compliance in nursing activities and treatment and self-care [7,9,10].

Discussion

Treatment for IBD patients is widely discussed in numerous papers. These are mainly focused on pharmacological and surgical approach to the therapy as well as on assessment of the therapeutic outcome and complications [11-14]. In this study we present the nursing care model scheduled strictly for the perioperative period which is a substantial part of long-term care for patients with IBD. Stein et al. presented the nursing care plan for undergoing surgery for ulcerative colitis. Nursing interventions in the perioperative period were based on the nursing diagnosis as follows: alteration in body image related to the need for a permanent or temporary ileostomy, anxiety related to knowledge deficit and stress of surgery, risk for acute

***Table 2*. Nursing problems in patients with inflammatory bowel disease – a postoperative period.**

Postoperative period		
Nursing problems	**Nursing procedures**	**Expected effects**
Risk of early postoperative complications	– thorough patient observation, assuring the sense of security – control of vital parameters and patient's consciousness – responsiveness to deviations in vital parameters and any possible complications (oxygen mask, assistance patient while vomiting, diuresis control, evaluation of the exudate from drainage tubes) – observation of general symptoms and the postoperative wound to prevent potential bleeding – safe and comfortable in-bed position – taking care about drainage, catheters, feeding tube status – assuring conditions for the patient's rest – documentation of all measurements	No disorders are found in respiratory, circulatory, thermoregulation, gastrointestinal and nervous systems. Good coursed postoperative period
Surgical wound pain	– systematic dosage of pain killers – elimination of factors triggering the pain by setting patient's comfortable position, using round-the-bed facillities and decreasing of the patient's physical activity – peace and silence	Elimination of the pain
Discomfort caused by limited physical activity	– assuring patients help during changing positions and hygienic activities (changing clothes etc.) – physical and respiratory rehabilitation – passive and active – bed-sore prevention – encouraging patient to self-care – assuring contact with the family	Lack of discomfort caused by immobilisation. Patient feels fine. Active attitude is helpful in regaining the physical efficiency
Risk of respiratory and circulatory complications due to pain and immobilisation	– prevention of atelectasis and pneumonia – deep breathing, respiratory exercises – assistance patients in coughing, prevention of wound dehiscence – prevention of thrombophlebitis, active exercises, early positioning	No complications during the postoperative period. Patient rehabilitation runs while on pain killer drugs
Impossible oral feeding in early stages of the postoperative period. Thirst.	– parenteral hydration and nutrition – care about canules – prevention of feeling of dryness in the mouth – moistening of the oral mucosa by mineral water – restrain patient from oral intake of fluids – hygiene of oral cavity – water balance control – observation of symptoms from gastrointestinal tract (nausea, vomiting, gases, first bowel movement)	Good level of hydration. Lack of complications allows diet be enriched
Risk of postoperative wound infection	– observation of postoperative wound, evaluation of exudate from the drainage tubes (documentation of the amount of exudate) – dressing changes according to aseptic/antiseptic regimen – antibiotic prophylaxis – taking care about the perianal wound following Miles's resection – patient education towards domestic wound care	Correct wound healing
Lack of knowledge and skills in ostomy care	– identification of self-care deficit in aspect of peristomal skin care – in-hospital early education about ostomy care, equipment etc. – giving detailed information about the diet, prevention of complications, possible ambulatory treatment and participation in ostomy patients associations	Patient is ready for self-care when back at home

or chronic pain related to surgery, risk for injury related to perioperative experience [13].

Nursing diagnosis remains basic for conducting the nursing process. The diagnosis allows to undertake the proper interventions as well as to evaluate and revise the initial proceedings.

Quality of life (QoL) stands for crucial indicator of sufficient nursing care in IBD patients. Good QoL is predominant in patients well educated by nurses in respect of the disease, preventing complications, rational dietary behaviour, rehabilitation and stoma care [15-17]. Physical and emotional support rendered to the patient hardens it's sense of security.

Conclusions

In conclusion, diagnosis of ulcerative colitis or Crohn's disease is concerned with the high possibility of the surgical treatment. Intensively treated patients are under holistic care of multidisciplinary team including surgeon, gastroenterologist, nurse, dietetist and psychologist. Epidemiological studies indicate an increase of morbidity in aspect of both diseases thus it would be justified to educate more specialist nurses, well prepared for care among patients with IBD.

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