

The Influence of the Mental State on the Emergency Colostomized Patients Postoperative Evolution

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Abstract: *A colostomy creates a temporary or permanent opening for the colon through the abdominal wall, in order to eliminate fecal matter, which is collected in a closed or open bag, attached to the skin with the help of an adhesive. It is obvious that the patient with colostomy faces psycho-emotional problems, due to the alteration of the body image and the need to change the lifestyle.*

Under emergency conditions, when the informed consent of the critically ill patient, as well as the psychological preparation for the colostomized future, are difficult, incomplete or impossible to achieve, psychological assistance in the postoperative evolution of patients becomes a problem, on which the whole medical staff (doctors, nurses, psychologists, stomatotherapists) involved in their care must insist. In the immediate postoperative period, combating pain, ensuring biological comfort (hydric, caloric and nutritional), local care and prevention of so-called minor complications, are very important. The patient must also know the alternatives in choosing the type of colostomy bag and the prospects of social reintegration, over time. The measures of emotional support of these patients must be applied intensively, but with tact and professionalism, in parallel with the education and preparation for the new anatomical-physiological changes. In such situations, in addition to the surgical act and the postoperative physical care, the postoperative evolution and the therapeutic success depend, to a large extent, on the modelling of the patient's mental state.

The present paper focuses on the above-mentioned aspect, drawing on the data from the literature and the experience of the authors.

Keywords: *mental state, colostomy, emergency surgery.*

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1. Introduction

Stoma in surgery, is the temporary or permanent opening of a cavitory organ (small intestine, colon, ureter) in the skin, in order to remove feces or urine, to be collected in a closed or open bag, fixed to the tegument, with an adhesive.

Stoma means, in Greek, mouth or opening. Depending on the open cavitory organ, there are: colostoma, ileostoma and ureterostoma. It is obvious that the patient with the stoma is facing psycho-affective problems, related to the alteration of the body image and the need to change the lifestyle (Rebegea et al., 2019).

Regarding the incidence of applying a permanent colostomy in advanced cancers, the statistics vary from 20-80%. The rate of dissolution of the colostomy in a second surgical time, possible after Hartmann interventions, is 60-68%, but even in these cases there is a rate of stoma complications of 44% (Norton, 2001; Zuidema, 1996).

More and more patients in Romania undergo surgery every year, which results in an abdominal skin stoma. This is not exactly easy for patients to accept, especially since such a procedure implicitly leads to lifestyle changes. In emergency conditions, when the informed consent of the critically ill patient, as well as the psychological preparation for the future colostomized, are difficult, incomplete or impossible to achieve, the modeling of the mental state in the postoperative evolution of these patients becomes a problem, which must be insisted by the entire medical staff involved in their care (Ciubara et al., 2016).

As we have shown, there are several types of skin stoma: ileostoma (opening of an intestinal segment), ureterostoma (opening of the ureter) and colostoma (when it comes to the colon). Colostomy, which we will talk about below, is the most frequently applied method; it can be practiced on any segment of the colon: cecum (cecostomy), transverse colon (transverse colostomy), left colon (left iliac colostomy). Colostomy can be temporary, performed while waiting for the lesions to heal, to allow the digestive tract to be restored, or permanent, if, downstream, the digestive tract is destroyed, blocked or surgically removed. Depending on the technical method of mounting the colostomy, it can be lateral ("in gun barrel") or terminal.

Colostomy indications refer to:

- malignant obstructive lesions of the distal colon, rectum and anus, which cannot be removed (in which colostomy is the only solution) or which can be removed, in which Hartmann's surgery or abdomino-perineal

amputation is performed; severe cases requiring a temporary anus, followed by radical surgery; rectal or anorectal inflammatory, posttraumatic or post-irradiation stenoses (Angelescu et al., 2004);

- lesions that require resting of the distal digestive tract (rectitis, recto-vaginal or recto-bladder fistulas, rectal wounds, disunion of colorectal anastomoses) or interventions on the colorectal segments, in which the left iliac anus is a protective valve, located above the anastomosis (Radulescu & Belusica, 1999).

2. Discussions

2.1. The surgical indication implies:

- preoperative training includes the establishment of a medical diagnosis and the indication for stoma,

- data collection, counseling, education, stoma location, skin preparation and digestive, evaluation after pre-anesthesia consultation, completion of the care team. For the patient, the preoperative preparation represents the understanding of the information, the acceptance of the surgery (consent), cooperation in preoperative training, involvement of family and entourage.

- the approach to general psycho-social aspects, in the preoperative period, includes: explaining the patient's current situation, combating anxiety, fear, grief, depression, suicidal tendencies, frustration, anger, negative self-image on the body, with altered self-esteem, in a word, maladaptation. Only then, it is possible to advise the patient, in compliance with the rules of confidentiality, intimacy, everything in a climate of trust. This can take place face-to-face, but is preferably with the participation of a family member or a person designated by the patient. This involves collecting data on physical, mental and emotional status; cultural and social environment, sensory skills, previous surgical experiences, the significance and impact of the current situation, finding out the level of motivation, concerns, interests, the existence of preconceived ideas (Radulescu et al, 2020). Environmental conditions, stress factors, attitude, but also the reaction of family and entourage (friends, colleagues) must also be investigated. Meeting with a same-sex colostomatized patient with a favorable postoperative outcome, can help to understand the importance of intervention. Also, ensuring a time of reflection, for the patient and family, is necessary and useful, for a truly informed and assumed consent (Falup-Pecurariu et al., 2017; Lupu et al., 2015; Voicu, 2020).

- establishing the location of the stoma, as well as its technical execution, is another important element in designing a favorable long-term postoperative evolution, with good social reintegration and prevention of mental, emotional and familial implications. This is the full responsibility of the surgeon. The criteria for determining the location of the stoma are: avoid bone relief, avoid scarring / surgical incision, avoid skin folds, choose a flat surface, crossing the right abdominal muscles, in a place visible to the future colostomized, found in clinostatism, orthostatism and sitting position (Târcoveanu, 2003).

In emergency cases, however, where the psychological training is precarious, under the pressure of the time factor, age, sex, weight status, professional activity, dexterity, the possible pre-existence of a physical disability are taken into account, and the identification is made considering maximum possible criteria.

2.2. Preoperative training refers to:

- skin preparation: preparation of the operating field and application of an antiseptic solution (betadine), to prevent possible local complications, which - even minor - alter, through persistence over time, dysfunctions and prolonged hospitalization, the mental status of the patient (Târcoveanu, 2003).

- pre-anesthetic consultation, which - in addition to establishing possible risks and dangerous comorbidities - must strengthen the patient's rational optimism, induced by previous informative discussions, which led to the acceptance of surgery. In cases operated in emergency, they are performed, practically, on the operating table.

- digestive training (protocols of preoperative diet and colic training), is postponed for the postoperative period, with increased effort and attention, for the physical and mental comfort of the colostomatized patient, in order to provide therapeutic success.

2.3. Postoperative care

The first stoma prosthesis is made in the operating room. Collector bag must combine the following conditions: being sterile, with hydrocolloid adhesive without filter, visitable (with two components), with discharge, large diameter. The choice of the collecting container is also important, not only from a strictly surgical point of view, but also for ensuring the patient's mental ease.

Immediate postoperatively, the hydric, caloric and nutritional evaluation and rebalancing of the colostomized is performed according to

the state of malnutrition, possible from the preoperative period, with the mention of signs of dehydration, resumption of intestinal transit and oral (oral, parenteral, enteral) quantitative qualitative. At the same time, it is necessary, but also difficult, to educate the patient, the family and the entourage, regarding food hygiene, possibly with the help of a dietitian. The care team participates in pain control and in the prevention and identification of major early complications - hemorrhage, partial or total necrosis of the stoma, partial or total disinsertion of the stoma, evisceration, abscess or fistula, intestinal occlusion (paralytic ileus, intestinal torsion, stenosis) and late – peristomal hernia, mucosal prolapse, bleeding, recurrence of the underlying disease, colic perforation, cutaneous or parietal stenosis. All these complications, including skin, so-called minor – contact/allergic/chemical/irritative dermatitis, folliculitis, pyodermitis, granuloma -, relatively easy to conservatively treat, must be prevented, because it affects the mental and emotional status of the patient and implicitly, his post-surgical evolution (Pinto, 2016).

The colostomatized patient is informed about the provided care before, during and after their performance. The items of specific stomatotherapy care, adapted to the patient's situation are:

- hygiene of the stoma and peristomal skin;
- checking for possible folds or peristomal depressions;
- measuring the diameter of the stoma;
- application of a skin protector in case of allergy to the device;
- presenting of the alternatives in choosing a certain type of collecting bag and / or a prosthetic technique and explaining the components and the ways of operation, with the afferent advantages and disadvantages

- protection of the stoma. The choice for the type of collecting bag takes into account: the type of stoma, the type and rhythm of eliminations, the time elapsed since surgery, the physical and intellectual abilities of the patient / relatives, the condition of the peristomal skin plans, the location of the stoma, lifestyle and even patient preferences. The objectives pursued in choosing the collection bag are:

- to ensure the tight and safe prosthesis of the stoma;
- to efficiently isolate the smell;
- to protect the peristomal skin and treat any local skin damage;
- to protect the stoma from possible direct / indirect trauma;
- the prosthesis should be made simple, in accordance with the patient's situation to provide the patient with physical and mental security, to enable family reintegration, social and professional development

- to be economically accessible to the patient (Norton, 2001; Radulescu, 1999; Târcoveanu, 2003; Voicu, 2020).

All these materials are intended for the mental and physical comfort of the patient. His comfort will be all the better, the more correct his training in the use of materials.

The type of collection bag used by the patient greatly influences his quality of life and smooths or not his path to family, social and professional reintegration. The surgeon and the nurse have a major role in advising the patient / relatives for the correct choice of the device and the right accessories for prosthesis and care.

2.4. The lifestyle of the colostomized patient

- return to normal life. All the steps mentioned above must be followed in an optimal way, so that the evolution of the emergency colostomized patient be favorable, and the colostomy not limiting the normal daily activities of the patient. The default physiological aspect can be initially accepted with difficulty. That is why it is very important to have a subtle psychological approach and obtain mental and emotional support from family and friends, especially in the first 2-3 months postoperatively.

- clothing. The colostomized patient should be advised not to change clothing, unless the positioning of the stoma or its dimensions so requires. This is another element that will increase his confidence and ensure his therapeutic success (Ciobotea et al., 2016; Valcea et al., 2016).

- general body hygiene. The colostoma allows the shower or bath in the bathtub, as before the, operation, so that the soap and water do not enter the stoma and do not irritate it.

- diet. After surgical healing, the patient will be able to resume his normal diet. The presence of the stoma does not impose a significant restriction on previous eating habits, given that they were part of a healthy and balanced style. Constipation in patients with colostomy may occur due to lack of exercise, insufficient fluid intake, low fiber diet, medication, but up to a point, it is beneficial. This is because diarrhea in patients with colostomy is to be avoided, as it can create serious hydro-electrolyte imbalances.

- odor control. The local odor is determined by excess intestinal gas, poor quality stoma prostheses, poor hygiene and lack of information acquisition.

- physical activity. Most colostomized people can gradually resume the exercises and sports activities, as they usually did before surgery. Swimming and other water sports can be practiced, with the mention that sea water and chlorine dry the adhesive disc.

- sexual intercourse. It is very important for the partner to understand the current situation and to always discuss openly about the problems that arise along the way. With postoperatively healing, the patient can still enjoy a normal sexual relationship with the partner. Although in principle, the presence of colostomy does not affect in any way, a possible pregnancy, it is important to consult a gynecologist.

- travel and tourism. A colostomy may not be an absolute contraindication to planned travel. It should be mentioned that in summer, the patient must take a larger number of collection bags and a few extra sachets of protective film for additional protection of the skin, in conditions of heat and perspiration.

- everyday life. Helped by medical, technical and psychological counseling, encouraged by a simple and rapid postoperative evolution, people with a digestive stoma will realize that they can live a normal life. In optimal conditions, it will be almost impossible for others to notice that the patient is wearing a colostomy device. Driving is not recommended in the first 3 months postoperatively, but return to work is possible even after 6-8 weeks; only those who perform physical work need a longer period of recovery (Ayaz-Alkaya, 2019; Bekkers, 1995; Jayarajah, 2016; Silva, 2017).

3. Conclusions

- the presence of colostomy obviously affects the psychosocial status of the patient. The expected or long-lasting nature of the stoma negatively alters the patient's emotional universe, predisposing to negative feelings, varying depending on intellectual, cultural and emotional factors, from sadness, to persistent pessimism and even suicidal tendencies. Decreased self-esteem as a physical aspect; loss of the role of family, professional or even social leader; the intensity of the suffering and the prolongation of the hospitalization duration due to the occurrence of the trailing complications, the complexity and difficulty of the self-care maneuvers, the more or less pregnant rejection from the entourage, the perspective of limiting the daily activities, negatively influence the psychosocial status of the colostomized patient.

- despite technical advances, the installation of colostomies remains necessary, useful and common in abdominal surgery. Therapeutically, it is a constant concern in the medical world. To overcome these obstacles, the role of the surgeon, nurse, dentist, dietitian and psychologist is staged, orderly and equally important. When the application of measures to increase the quality of mental, emotional, family and social life, cannot start from the preoperative period, because of the surgical emergency does not allow it, it

continues intraoperatively and then intensely and tenaciously in postoperative period, as necessary. The care team must be empathetically trained and prepared, to discreetly, delicately, ethically and deontologically act.

- the mental factor becomes even more important in the postoperative evolution of emergency colostomized patients. The measures of emotional support of these patients must be applied intensively, but with tact and professionalism, in parallel with the education and preparation for the new anatomical-physiological changes.

- the final goal of any surgical act is to ensure a high standard of quality of life, social reintegration, resumption of a normal family life and recovery of emotional imbalances. We consider that the previously exposed measures, applied by us constantly, as we gain experience in over 30 years of surgical activity, ensure almost optimal results in this regard. Prophylaxis of the psychosocial implications of this gesture

References

- Angelescu, N., Popa, E., & Angelescu, M. (2004). Atitudinea terapeutică în cancerile rectosigmoidiene si genitale local avansate si complicate. *Chirurgia* 99(1), 11-17.
<https://www.revistachirurgia.ro/cuprinsen.php?EntryID=105>
- Ayaz-Alkaya, S. (2019). Overview of psychosocial problems in individuals with stoma: a review of literature. *International Wound Journal*, 16, 243–249.
<https://doi.org/10.1111/iwj.13018>
- Bekkers, M. J., van Knippenberg, F. C., van den Borne, H. W., Poen, H., Bergsma, J., & van BergeHenegouwen, G. P. (1995). Psychosocial adaptation to stoma surgery: a review. *Journal of Behavioral Medicine*, 18(1), 1-31.
<https://doi.org/10.1007/BF01857702>
- Ciobotea, D., Vlaicu, B., Ciubara, A., Duica, C. L., Cotocel, C., Antohi, V., & Pirlog, M. C. (2016). Visual Impairment in the Elderly and its Influence on the Quality of Life. *Revista de Cercetare si Interventie Sociala*, 54, 66-74.
<https://www.rcis.ro/ro/section1/142-volumul-54-2016-septembrie/2293-visual-impairment-in-the-elderly-and-its-influence-on-the-quality-of-life.html>
- Ciubara, A., Chirita, R., Burlea, L. S., Lupu, V. V., Mihai, C., Moisa, S. M., Untu, I. (2016). Psychosocial Particularities of Violent Acts in Personality Disorders. *Revista de Cercetare si Interventie Sociala*, 52, 265-272.
<https://www.rcis.ro/ro/section1/140-volumul-52-2016-martie/2246-psychosocial-particularities-of-violent-acts-in-personality-disorders.html>

- Falup-Pecurariu, O., Man, S., Neamtu, M. L., Chicin, G., Baci, G., Pitic, C., Cara, A. C., Neculau, A. E., Burlea, M., Brinza, I. L., Schnell, C. N., Sas, V., Lupu, V. V., François, N., Swinnen, K., & Borys, D. (2017). Effects of prophylactic ibuprofen and paracetamol administration on the immunogenicity and reactogenicity of the 10-valent pneumococcal non-typeable *Haemophilus influenzae* protein D conjugated vaccine (PHiD-CV) co-administered with DTPa-combined vaccines in children: An open-label, randomized, controlled, non-inferiority trial. *Human Vaccines & Immunotherapeutics*, 13 (3), 649-660.
<https://doi.org/10.1080/21645515.2016.1223001>
- Jayarajah, U., & Samarasekera, A. M. (2016). A study of postoperative anxiety and depression among patients with intestinal stomas. *Sri Lanka Journal of Surgery* 34(2), 6 – 10. <https://doi.org/10.4038/sljs.v34i2.8261>
- Lupu, V. V., Ignat, A., Paduraru, G., Mihaila, D., Burlea, M., & Ciubara, A. (2015). Heterotopic Gastric Mucosa in the Distal Part of Esophagus in a Teenager Case Report. *Medicine* 94(42), e1722.
<http://doi.org/10.1097/MD.0000000000001722>
- Norton, J.A., Philip, S. B., Bollinger, R. R., Chang, A. E., Lowry, S. F., Mulvihill, S. J., Pass, H. I., & Thompson, R. W. (Eds.). (2001). *Surgery, Basic Science and Clinical Evidence*. Springer.
- Pinto, A., Faiz, O., Davis, R., Almoudaris, A., & Vincent, C. (2016). Surgical complications and their impact on patients' psychosocial well-being: a systematic review and meta-analysis. *BMJ Open*, 16(2), e007224.
<http://doi.org/10.1136/bmjopen-2014-007224>
- Rădulescu, I. D., Ciubara, A. B., Moraru, C., Burlea, S. L., & Ciubară, A. . (2020). Evaluating the Impact of Dissociation in Psychiatric Disorders. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 11(3Sup1), 163-174.
<https://doi.org/10.18662/brain/11.3Sup1/132>
- Rădulescu, D., & Belusică, L. (1999). *Caiete de chirurgie practică*, Vol. II (Ed. a II-a) [Practical surgery notebooks, Vol. II (2nd ed.)]. Medical Publishing House.
- Rebegea, L., Firescu, D., Baci, G., & Ciubara, A. (2019). Psycho-Oncology Support. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 10(3 (Special issue), 77-88. <https://lumenpublishing.com/journals/index.php/brain/article/view/2169>
- Silva, N. M., Santos, M. A. D., Rosado, S. R., Galvão, C. M., & Sonobe, H. M. (2017). Psychological aspects of patients with intestinal stoma: integrative review. *Revista Latino – Americana de Enfermagem*, 25, e2950.
<http://doi.org/10.1590/1518-8345.2231.2950>
- Târcoveanu, E. (2003). *Tehnici Chirurgicale. Caiete de Rezidențiat*. [Surgery techniques. Resident notebooks]. Ed. 2003.

- Valcea, L., Bulgaru-Iliescu, D., Burlea, S. L., & Ciubara, A. (2016). Patient's rights and communication in the hospital accreditation process. *Revista de Cercetare si Interventie Sociala*, 55, 260-270. <https://www.rcis.ro/ro/section1/143-volumul-552016decembrie/2321-patients-rights-and-communication-in-the-hospital-accreditation-process.html>
- Voicu, D., Popazu, C., Stan, D., Ciubara, A. (2020). *Implicatii psihosociale ale colostomiilor*. Galatia 2020
- Zuidema, G. D. (1996). *Surgery of the Alimentary Tract (4th ed.)*. W. B. Saunders Company.