

The journal has had 7 points in Ministry of Science and Higher Education parametric evaluation. Part B item 1223 (26.01.2017).
1223 Journal of Education, Health and Sport eISSN 2391-8306 7

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The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 05.09.2017. Revised 10.09.2017. Accepted: 10.09.2017.

Intestinal stoma as a result of surgery

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Abstract

Admission: The history of the emergence of artificial fistula counts nearly 300 years. The first stoma were selected in a targeted manner in 1776. Estimates indicate that the number of intestinal fistulas performed in our country is around 6 thousand. per year, it is estimated that people living with a stoma is about 20 thous. of which the majority are women¹. Intestinal stoma of the Latin language. preaternalis anus is opening. It is produced in the conditions in which it is necessary to cut or a corresponding decompression intestine². People who were selected as a result of disease stoma are afraid of how they will function in daily life. The aim of the work is to illustrate the issues concerning the stoma, including, history, epidemiology, etiopathogenesis, complications, frequency and quality of life of patients with stoma.

¹Cierzankowska K. : The lesions around stomii- prevention and treatment. "Proctology, Supplement. V Symposium of Polish Club of Colon and Rectal "2005, p. 48-49.

²Ułańska J Wild A Kołomecki K. ambulatory care for patients with a stoma. Post Valetudinaria- Forces Med Klin 2004; 9, 87-92.

Key words: intestinal stoma, quality of life, surgery

Introduction

Intestinal stoma of the Latin language *Preaternaturalis anus* is opening. It is produced in the conditions in which it is necessary to cut or a corresponding decompression intestine³. This is deliberate and artificial combination of the light cavernous organ of the body surface⁴. End or the side of the preserved colon is passed through an opening formed in the shell of the abdominal cavity, and then developed for, and intestinal mucosa attached suture is absorbed into the skin⁵. Stoma referred to also as a "shunt" operational connection of internal organs of the body with the coatings (External fistula), or between organs (internal fistula) in the case where the organs are not subject to excision and anatomical continuity has not breach (...), for example. Fistula formation of internal caecum, colon, sigmoid⁶.

Stoma often called "artificial anus"⁷. This statement is not quite correct, because in many patients causes negative emotions and should not be distributed. Picking stoma affects the biopsychosocial functioning of the patient. People who were selected as a result of disease stoma are afraid of how they will function in daily life. Patients live in fear of physical suffering, but also against the loss of human dignity, the current social status, feasibility plans, dreams, life and work. They are afraid of rejection of family, friends, co-workers. The most common cause of intestinal stoma is colon cancer. Colon cancer ranks second in cancer diseases among women and among men^{8,9}. It is the second cause of death in men after lung cancer and the third after breast and cervical cancer in women. According to statistics in Poland are diagnosed each year about 11 thousand. cancers of the colon and rectum. Because this cancer die each year about 8,000 patients¹⁰.

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⁶With Banaszkiwicz, Jamrocki P A. Java stoma -causes rules and emergence. *Bydgoszcz* 2004; 9,2,106-109.

⁷K. Bielecki Good stoma. *Proctology, Supplement. V Symposium of Polish Club of Colon and Rectal.* | 2004; 1,27-28.

⁸Kashtan H, Werbin N, and Wasserman, et al .: Colorectal cancer in patients over 70 years old. A prospective study of operative results. *Isr J Med Sci* 1992, 28, p, 861.

⁹Walewska E. *Fundamentals of surgical nursing.* PZWL. Warsaw, 2010.

¹⁰ <http://onkologia.org.pl/jelito-grube/22.09.2017> g.15: 12.

Aim

The aim of the work is to illustrate the issues concerning the stoma, including, history, epidemiology, etiopathogenesis, complications, frequency and quality of life of patients with stoma.

The history of intestinal stoma

The history of the emergence of artificial fistula counts nearly 300 years. The first stoma were selected in a targeted manner in 1776. He did this, a French surgeon M. Pillore. Emerged intestinal fistula in the treatment of rectal cancer. In 1793 Duret effective operation conducted stoma on the large intestine. Over the years of the eighteenth century it introduced this surgical technique in the treatment of mechanical intestinal obstruction and colorectal cancer¹¹. In 1967, Turnbull and Weakly developed principles of proper intestinal stoma, which are also used today. In the initial period methods to provide the stoma were very primitive, starting from the use of leaves, gases, cotton, leather plastic bags, which were attached to the skin with adhesive. An important role in the evolution of an ostomy appliance Elise Sorensen played. It was a Danish nurse who watched her sister with a stoma and the problems that were associated with the care or supplies, he decided to strive to improve ostomy appliance¹². Her ideas and innovations were introduced to mass production in the second half of the 50s¹³. Still seeks to ensure that the ostomy equipment was the best and was adapted to the individual needs of each patient with a stoma. Regarding Poland for many years lacked an ostomy appliance and the cost of purchasing equipment was very expensive¹⁴.

Epidemiology-intestinal stoma

Statistics show that over the last thirty years there has been a increase in the number of intestinal stoma emergence. Despite the development of surgical techniques, performing preoperative irradiation, unfortunately, this number is not reduced¹⁵. Estimates indicate that the number of intestinal fistulas performed in our country is around 6 thousand. per year, it is

¹¹ Banaszkiwicz, Jamrocki P A. Java stoma -causes rules and emergence. Bydgoszcz 2004; 9,2,106-109.

¹²Pochocka L, A. Urbanek-intestinal stoma epidemiology, historical background, principles of selecting and types of intestinal stoma. Probl Hig Epidemiol 2014; 3: 586-590.

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¹⁴Ringing Dowbor-A, Nowicki A. The role of nurses in the care of patients with a stoma In: Oncology Nursing. Ed. A Nowicki, Termedia, Poznań 2009; 233-253.

¹⁵Bazaliński D Barańska B, E .: Tzipi intestinal stoma does not have to be a cause of disability. "Borgis - Medicine family," 2006, p; 58-63.

estimated that people living with a stoma is about 20 thous. of which the majority are women¹⁶.

Every year, the situation of the patient with a stoma in Poland is changing. There are more and more well-trained as a specialist in the field of ostomy patient care, both clinically and psychologically. Specialists in the field of patient care ostomy, very familiar with the problems of patients are able to professionally prepare a man to a new life that does not necessarily mean disability living. Specialized staff works with the patient in the home environment in the context of long-term family care or in Postoperative Care Program, Gold Card Program^{17,18}.

The result of intestinal stoma surgery

Development of medical science has allowed for the existence of the possibility of effective treatment of previously incurable. Lengthen the life of a man, but the number of people who require specialized medical care. Among them we can distinguish people with stoma. It is important to draw attention to the fact, the quality of life in the dimension of the functioning biop-psycho-social. Coping with a completely new situation in life¹⁹. The increase in the incidence of colon cancer and other diseases, among which can be distinguished: inflammatory, bowel injuries, caused that in spite of such a dynamic development in the field of medicine, surgery, unfortunately, but still increasing the number of tasks intestinal stoma²⁰. According to Holzer et al., Patients with emerged stoma often, as the main reason of physical dysfunction indicate surgery²¹. Many activities that previously performed without any problems, suddenly becomes incredibly difficult and requires sacrifices on the part of the patient. Depression, withdrawal, loss of stability and confidence can often lead to frustration and, consequently, even depression. The surgeon during surgery

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¹⁷Ułańska J Wild A, K .: Kołomecki ambulatory care for patients with a stoma. Post Valetudinaria- Forces Med Klin 2004, 9, pp, 87-92.

¹⁸Dyk D Cudak E.:Badanie symptoms [i]: physical examination nursing. Ed. D. Dyk PZWL Medical Publishing House, Warsaw 2010, p; 19-22.

¹⁹Rauch P, Mina J Conroy T Neyton L, Guillemin F .: Quality of life among disease-free survivors of rectal cancer. J Clin Oncol 2004, 22 s; 354-60.

²⁰With Banaszekiewicz, Jamrocki P, A .: Java stoma - causes rules and emergence. Bydgoszcz 2004, 9.2, s; 106-109.

²¹Schiessel R, G Novi, Holzer B, ET et al .: Technuque and long-term results of intersphincteric resection for low rectal cancer. Dis Colon Rectum 2005.48, s; 1858-1865.

to remove the cause and / or outbreak seeks to restore the continuity of the digestive tract, because it has an extremely large impact on the further life and the functioning of the patient²². Not always possible to maintain the physiological bowel passage, because there is a stoma tract.

The causes of intestinal stoma:

- Tumors of the colon, which constitute about 90% of the²³.
- Ulcerative colitis
- Crohn's disease,
- Plural familial polyposis of the colon,
- Low-type adenoma adenomas located villosum,
- Cons rectum and anus,
- The complications of diverticular diseases of the colon,
- Injuries rectum,
- Other specific situations; not healing bed sores, genital warts,
- Postoperative complications,
- Mechanical obstruction and severe paralytic ileus,
- Congenital,
- Necrotic lesions caused by ischemia and trauma, for example. Mesenteric embolism, incarcerated hernia,^{24,25,26}

The technique stoma is the combination of the removed portion of the small intestine, colon, rectum and deliberate creation of an association with the body surface. The next stage is to secure the reservoir to the stoma content of the enteric coating disposed on the surface of

²²Kashtan H, Werbin N, and Wasserman, et al .: Colorectal cancer in patients over 70 years old. A prospective study of operative results. *Isr J Med Sci* 1992, 28, p, 861.

²³Wronkowski W, Brużewicz W .; Tumors of the colon. Medical Publishing PZWL. Warsaw 2005, p; 13-87.

²⁴Pochocka L, Urbanek A .: The intestinal stoma - epidemiology, historical background, principles of selecting and types of intestinal stoma. *Probl Hig Epidemiol* 2014.3, s; 586-590.

²⁵Dyk D Cudak E.:Badanie symptoms [i]: physical examination nursing. Ed. Dyk D PZWL Medical Publishing House, Warsaw 2010, p; 19-22.

²⁶Gooszen AW Geelkerken RH, Hermans J, Lagaay MB Gooszen HG .: Quality of life with a temporary stoma: ileostomy Vs. colostomy. *Dis Colon Rectum* 2000, 43, pp, 650-5.

the abdominal skin^{27,28}. In the above situations is the only way through which fecal matter are removed to the outside.

The location and the correct execution of the stoma is very important to the whole process of treatment and the patient during the rehabilitation process. The appropriate location and the proper execution of the stoma taking into account: surgical technique helps prevent early and late complications of surgery²⁹.

The so-called principles. "Good stoma"³⁰:

- A. Ostomy channel, which has a diameter of approx. 2-2.5 cm should be located straight abdominal muscle.
- B. Place stoma should be visible to the patient's concerns above all, obese people. Determination of the stoma site should be made together with the patient before surgery in standing, sitting and lying down.
- C. The stoma should be spaced from the main cutting at least 4 cm.
- D. The stoma should not be in the area iliac spine, scars and other skin folds, changes in radiation and skin grafts³¹. In obese stoma is made in the navel, previously it cut down.

Properly installed stoma characterized by the following features: the stoma mucosa is pink or pink-red and its surface is slightly damp, comparable to the appearance of the oral mucosa. The shape of the stoma is circular or oval, the outer diameter of the stoma is 2 to 5 cm. Urostomia and ileostomy are usually smaller, colostomy is slightly larger. The height of the stoma depends on its type and kind. Having emerged properly stoma is convex and extends above the surface of the skin to 1-2 cm in the case of a colostomy and urostomy and 2 to 3 cm in the case of ileostomy³². Discharge from the stoma depends on its type; ileostomy properly

²⁷Schiessel R, G Novi, Holzer B, ET et al. : Technuque and long-term results of intersphincteric resection for low rectal cancer. *Dis Colon Rectum* 2005.48, s; 1858-1865.

²⁸Szczepkowski M. : -challenge intestinal stoma, not only for the surgeon. *Proctology for doctors family*, Warsaw 2004.4, pp, 57-69.

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³⁰Szczepkowski M. : Good stoma. *Borgis- progress Sciences Medycznych*5 / 2006, XIX, pp; 240-250.

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³²Gooszen AW Geelkerken RH, Hermans J, Lagaay MB Gooszen HG. : Quality of life with a temporary stoma: ileostomy Vs. colostomy. *Dis Colon Rectum* 2000, 43, pp, 650-5.

separated liquid or semi-liquid stool, and colostomy semi-fluid or solid stool. When the stoma begins to separate the blood indicates a pathology itself mucosa may bleed slightly. The skin around the stoma has the appearance of a normal like not very different, such as the skin or in other areas of the abdomen, ie. Is listening, non-irritated without any redness, ulceration, blistering, rashes, abrasions or erosions. Do not itch not baked, not hurt, although it is still glued to her ostomy bag³³. The stoma should not restrict the patient. With a stoma it is possible to live a normal life, taking into account professional and private life. The stoma should not constitute a barrier to achieving new goals in life. To this were true it is important to not only the correct determination of the stoma, but also an optimal fit for selection of an ostomy appliance to the individual needs of the patient. This equipment is to give the patient a sense of security, comfort, and must be very tight for the intestinal contents, it can cause skin irritation, odor should stop, be easy to use, aesthetic and, above all, discreet, and must have adequate capacity. There are two types of ostomy appliance. The first is a two-piece in the equipment, which includes plate glued to the skin, which remains on the skin a few days and her bag, exchanged depending on the individual patient's needs. Equipment piece part, which includes the adhesive plate and attached to the fixed bag; stick it directly to the skin and peeled off when filling and discarded. This system is more hygienic and easy to use.³⁴

Division criteria stoma

Stoma is divided according to specific criteria:

- A. Criterion time:
 - 1. temporary stoma
 - 2. stoma definite

Ad.1 stoma time is most often performed in the case of injury to the rectum, the intestinal diverticulum perforation in order to evacuate the gastrointestinal tract in order to accelerate the healing of anastomosis shunt emerged out below.³⁵

³³Bazaliński D Barańska B, E .: Tzipi intestinal stoma does not have to be a cause of disability. "Borgis - Medicine family," 2006, p; 58-63.

³⁴Ringing Dowbor-A, Nowicki A .: The role of nurses in the care of patients with a stoma [in]: Oncology Nursing. Ed. A Nowicki, Termedia, Poznan 2009, pp; 233-253.

³⁵Cierzankowska K .: The lesions around stomii- prevention and treatment. "Proctology, Supplement. V Symposium of Polish Club of Colon and Rectal, 2005, p. 48-49.

Ad. 2 stoma stoma is definite, which is assumed in the embodiment the patient abdomino-perineal rectum and removal of the anus of a cancer located in the lower part of the rectum³⁶.

B. The level of the intestine, where the stoma is made:

1. Ileostomia- to the small intestine (ileum)
2. Kolostomia- the large intestine³⁷

C. Type of operation performed:

1. Final so-called stoma one barrel stoma, is the outlet side of the gastrointestinal tract ends with the coatings of the abdominal cavity, and the remainder is cut or stitched blindly³⁸.
2. The so-called stoma side two barrel , or loop. This is one of the temporary solutions, which involves pulling a small abdominal incision bowel loops and incision of it, which is achieved through two holes so. Two stoma. One end of the initial part of the intestine and is used for the discharge of stool. The other is temporarily inactive outlet end portion of the intestine and excreted only locks. This type of temporary stoma is performed, for example. In order to give celite time to heal before re-anastomosis³⁹.

Colostomy stoma is situated at the large intestine. It is the most common stoma. The greater part of the colon is preserved and the more molded is formed stool. Colostomy is most often emerges on the left side of the navel down⁴⁰. Exceptional clinical situations may force a different location. Proper colostomy should be slightly convex from 0.5 to 1.5 cm above the skin. It should extend over the abdominal wall to 0.5 to 1.5 cm⁴¹. Colostomy can be produced

³⁶ <http://www.facit.org/> on Outcomes, Research and Education (CORE), Evanston Northwestern Healthcare, www.facit.org 2014.12.12

³⁷ Bazaliński D Barańska B, E .: Tzipi intestinal stoma does not have to be a cause of disability. "Borgis - Medicine family," 2006, p; 58-63.

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⁴¹ Gooszen AW Geelkerken RH, Hermans J, Lagaay MB Gooszen HG .: Quality of life with a temporary stoma: ileostomy Vs. colostomy. Dis Colon Rectum 2000, 43, pp, 650-5.

in different parts of the colon; at the level of the sigmoid colon (sigmoidostomia), the cross (transversostomia), the cecum (cekostomia)⁴². Colostomy is performed at the terminal end of the colon. The aim of treatment is to place the colostomy on the surface of the abdominal stoma through which the possible discharge of intestinal contents from the digestive system. Place stoma is dependent on the location of the fault segment of the colon. Its location and cause of the emergence decide whether it is a constant output or temporary⁴³. Ileostomy stoma is performed on the small intestine to the ileum. There are digestive enzymes and acids that may cause skin irritation, so in the case of ileostomy can't come into contact with the skin expelled stomach contents. People with an ileostomy are more prone to dehydration and, consequently, the loss of important minerals⁴⁴.

Stoma complications

Complications stoma can be divided into systemic and topical. Among the local complications distinguished surgical complications early and late. Late surgical complications can occur a few weeks or even years after the previous surgery. There are also dermatological complications that result from improper use of an ostomy appliance or infection around the stoma⁴⁵.

Among the systemic complications are distinguished:

- Psychosocial, mainly due to surgery and its consequence,
- sexual
- metabolic; electrolyte deficiency, gallstones, urolithiasis, macrocytic anemia,

Disorders of water - electrolyte dehydration, hyponatremia, metabolic acidosis, hypomagnesemia, hypocalcemia, hypokalemia^{46,47,48,49,50,51}

⁴²Leyk M, J Books, Piotrkowska R et al .: Quality of life of people with emerged colostomy. A care Chir Angiol 2010.3, pp: 77-84.

⁴³Panczek D Nowicki A Zegarski In et al .: Evaluation of the quality of life of patients surgically treated for rectal cancer in terms of socio-demographic factors. Contemporary Oncology 2006.10, pp 164-170.

⁴⁴<http://www.stomicy.org/alergia-na-trepci-jelitowe-przy-stomii-wos-32.html>-2014.12.11.

⁴⁵Pochocka L, Urbanek A .: epidemiology-intestinal stoma, historical background, principles of selecting and types of intestinal stoma. Probl Hig Epidemiology 2014.3, s; 586-590.

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⁴⁷Stodolsa A Szewczyk MT, Banaszkiwicz Z Jawień A .: The variety of nursing problems in selected patients with a stoma. Valetudinaria -Post Army Med Klin 2002, pp, 25-29.

Conclusion

In today's era of technology and medicine it seems that everything should be easier and simple. The development of new medicine and treatment techniques should eliminate all the drawbacks associated with dysfunction of the twenty-first century human health. Along with increasing length of human life, the number of cancers including cancer of the colon. This is caused not only by genetics, but also exposure to harmful agents in the environment. Colorectal cancer is becoming more common malignant tumor of the gastrointestinal tract. The consequence is often the intestinal stoma. There are no age restrictions associated with creating a stoma. Among patients with a stoma are people of all ages; from small children to the elderly. In recent years there has been a sharp increase in interest, so. "Quality of life" of patients with diseases of corner types. Such a big interest in this issue is closely linked to the new concept and ideology of medicine, including diagnosis of patient care throughout the patient responsible for the so-called. holistic model, prolongation of life in the biological sense, but also help to make this life and active life similar to that of the pre-disease. The issue of the quality of life of people with a stoma is very important not only for people with a stoma, but for the whole society.

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