ORIGINAL ARTICLE

REVISTA ENFERMAGEM ATUAL IN DERME

EPIDEMIOLOGICAL, CLINICAL AND THERAPEUTIC PROFILE OF PATIENTS UNDERGOING POSTOPERATIVE FEEDING-RELATED STOMAS

PERFIL EPIDEMIOLÓGICO, CLÍNICO E TERAPÊUTICO DE PACIENTES EM PÓS-OPERATÓRIO DE ESTOMAS DE ALIMENTAÇÃO

Rizocele da Silva Souza[1] * Alana Tamar Oliveira de Sousa[2] * Karla Karolline Barreto Cardins[3] * Edlene Régis Silva Pimentel[4]

RESUMO

Objetivos: Descrever o perfil sociodemográfico, clínico e terapêutico de pacientes em pós-operatório de estomas de alimentação de um hospital escola. Específicos: Caracterizar os pacientes conforme dados sociodemográficos; identificar as principais indicações, técnica operatória utilizada, tipos de sondas empregadas e dietas em pacientes em pós-operatório de estomas de alimentação; reconhecer as complicações pós-operatórias e o desfecho de pacientes submetidos a estomas de alimentação. Métodos: Estudo documental-descritivo, com abordagem quantitativa, realizada num hospital escola. Os dados foram analisados a partir do pacote estatístico SPSS (*Statistical Package for Social Sciences*) versão 21.0. Foram obtidas distribuições absolutas e percentis e as medidas estatísticas médias e desvio padrão de técnicas de estatística descritiva. Resultados: O público da amostra era composto na maioria por homens, aposentados e agricultores, residentes na zona urbana, com renda per capita baixa, ex-etilistas e ex-tabagistas, tendo indicação da gastro/jejunostomia para suporte nutricional. As complicações pós-operatórias foram tanto locais quanto sistêmicas; com tempo internação prolongados, porém com desfecho para alta hospitalar. Conclusão: Os pacientes apresentaram inúmeras complicações pós-operatórias, de origem multifatorial.

Palavras chave: Estomas Cirúrgicos-Gastrostomia-Jejunostomia-Cuidados de enfermagem-Complicações Pós-Operatórias-Estomaterapia.

ABSTRACT

Objectives: To describe the sociodemographic, clinical and therapeutic profile of patients in the postoperative period of feeding-related stomas in a teaching hospital. Specific: To characterize patients according to sociodemographic data; to identify the main indications, operative technique used, types of probes used and diets in patients in the postoperative period of feeding-related stomas; to recognize postoperative complications and the outcome of patients undergoing feeding-related stomas. Methods: Documentary-descriptive study, with a quantitative approach, conducted in a teaching hospital. The data were analyzed using the statistical package SPSS (Statistical Package for Social Sciences), version 21.0. Absolute distributions and percentiles were obtained, as well as the average statistical measures and standard deviation of descriptive statistics techniques. Results: The sample population was composed mostly of men, retirees and growers, living in the urban area, with low per capita income, ex-alcoholics and ex-smokers, with indication of gastro/jejunostomy for nutritional support. Postoperative complications were both local and systemic; with prolonged hospital stay, but with outcome for hospital discharge. Conclusion: The patients had numerous postoperative complications, of multifactorial origin.

Keywords: Surgical Stomas-Gastrostomy-Jejunostomy-Nursing Care-Postoperative Complications-Stomatherapy.

[1] Bacharel em enfermagem pela Universidade Federal de Campina Grande. Pós-graduada em enfermagem dermatológica pela Sociedade Brasileira de Enfermagem em Feridas e Estética em parceria com a Estácio de Sá. Orcid: 0000.0002-6242-0815. Email: rizocele.nf@hotmail.com

[2] Doutora em enfermagem pela Universidade Federal da Paraíba-UFPB. Mestre em Enfermagem pela UFPB. Mestre em Enfermagem em terapia intensiva pela Sociedade brasileira de de terapia intensiva-SOBRATI. Especialista em enfermagem do trabalho pela faculdade integrada de Patos-FIP. Graduada em enfermagem pela UFPB. Docente do curso de graduação em enfermagem da Universidade Federal de Campina Grande-UFCG, campus Cuité. Membro do grupo de Estudos e pesquisa em tratamento de feridas- GEPEFE/UFPB e do Grupo de Estudos e Pesquisas Interdisciplinares em Saúde e Enfermagem-GEPISE/UFCG. Especialização em andamento em enfermagem dermatológica pela Sociedade Brasileira de Enfermagem em Feridas e Estética em parceria com a Estácio de Sá. Orcid: 0000.0002-1683-2851

[3] Mestre em Saúde Pública pela Universidade Estadual da Paraíba-UFPB. Graduada em enfermagem pela Universidade Federal de Campina Grande-UFCG. Docente no curso de enfermagem na UFCG. 0000.0002-5571-2932

[4] Enfermeira graduada em bacharel em enfermagem pela Faculdade Santa Emília de Rodat). Especialista em Terapia Intensiva pela Faculdade de Ciências Médicas-FCM. Docente do curso de bacharelado em enfermagem da Universidade Federal de Campina Grande-UFCG, campus Cuité. Pós-graduanda em enfermagem dermatológica pela Universidade Estácio de Sá. 0000.0001-8441-0944

REVISTA ENFERMAGEM ATUAL IN DERME

INTRODUCTION

Nutritional therapy through gastrostomy or jejunostomy is common in clinical practice. Both are surgeries performed for gastric and enteric access, respectively, where a stoma is prepared to introduce a tube to provide food to patients[1], and then it is introduced to replace nasogastric or nasoenteric tubes, for those patients who need prolonged nutrition, being indicated the accomplishment of a gastrostomy or jejunostomy. The main causes for these procedures are malignant diseases of the upper gastrointestinal system, such as squamous cell carcinoma of the esophagus, pharynx, oral cavity and larynx, as well as stenosing esophagogastric transition adenocarcinoma[2]. Nevertheless, these evils contribute in part to the outcome of surgical processes with the purpose of feeding.

The nursing professional as a member of a team that assists the health of individuals can reduce the number of these complications by means of appropriate care, both in the insertion, removal or handling of the feeding tube in gastrostomies. Care procedures such as: carrying out continuing education of professionals to properly handle the probe, guidance for the patient and/or family members; seeking the multidisciplinary team to assess the patient even before surgery; using aseptic techniques when caring for peristomal skin, in order to avoid infection; maintaining care in relation to filling the probe cuff; and performing gastric content aspiration before administering a diet (in low-profile gastrostomy) can minimize damage to patients; however, there are few studies in the literature on the care of these individuals with the gastrostomy tube that often evolve into complications.

In view of the numerous complications that may arise in patients regarding the use of gastrostomy or jejunostomy, the need and importance of research in this area for different contexts is underlined, given that it is a topic that has been little worked on in national studies, and more commonly shown in international articles. It is important for the health area, as research of this type generates new knowledge, which can assist in the prevention of complications, in the treatment and rehabilitation of ostomized patients, and can also provide the adoption of good practices through adequate care with these patients. This has fundamental appreciation for nursing workers, since it is the category that assists the patient with their care, in all situations of comorbidities, including, nursing staff is responsible for performing the care of wounds and stomas, which must be prepared to deal with complications of feeding-related stomas, and even offer pre and postoperative care that prevents damage, as well as knowing how to intervene in the face of them, using the ideal products and care to reestablish the health of patients. For the scientific community, it will bring benefits through several aspects, since the study may present

REVISTA ENFERMAGEM ATUAL IN DERME

epidemiological, clinical and therapeutic data that may open other ranges of studies in this area in need of research.

Considering the need for research on this topic, the objectives of this study are: **Overall:** To describe the sociodemographic, clinical and therapeutic profile of patients in the postoperative period of feeding-related stomas in a teaching hospital. **Specific:** To characterize patients according to sociodemographic data; to identify the main indications, operative technique used, types of probes used and diets in patients in the postoperative period of feeding-related stomas; to recognize postoperative complications and the outcome of patients undergoing feeding-related stomas.

METHOD

This research is part of a larger study entitled “Complications of operative wounds in surgical patients”, with a documentary-descriptive character and a quantitative approach. The research was conducted in a Teaching Hospital of Campina Grande. The study was developed by searching the medical records of the hospital clinics, with data search using a data collection instrument designed by the researcher, containing sociodemographic and clinical characteristics. In this instrument, questions with a sociodemographic, clinical and therapeutic profile were included, since many clinical conditions involve a set of predisposing factors, which were fulfilled according to the analysis of the medical records. Those within the range from January 2012 to December 2017 were selected. The period of collection was two months (January to February 2018), the information of which was transcribed in the collection instrument. The inclusion criteria were the medical records that presented: Patients over 18 years old; type of surgery (Gastrostomy or Jejunostomy); and as exclusion criteria: Medical records with unreadable or blank content. In order to calculate the sample size of people admitted to the Hospital Clinics, a survey of the number of people with gastrostomy or jejunostomy hospitalized during the above period was carried out, which was 93 people. Thus, considering the sample calculation for a finite population, with a 95% confidence level, a sample of 75 medical records was obtained, of which 42 constituted the data of this research, which were presented and analyzed. As approved by the Research Ethics Committee, the medical records were requested from the responsible sector. The data were transferred to Excel software to design a spreadsheet for the questions contained in the data collection instruments. The information contained in the database was transferred to the statistical package SPSS (Statistical Package for Social Sciences) – version 21.0. In order to analyze data, absolute and percentile distributions were obtained and the statistical measures

REVISTA ENFERMAGEM ATUAL IN DERME

"average" and "standard deviation" of descriptive statistics techniques. The research was held in accordance with the ethical precepts proposed by the Resolution of the National Health Council nº 466/2012, respecting all ethical aspects of research involving human beings, whether the institution or the professionals. Thus, this research was approved by the Ethics Committee under CAEE nº 57917316.4.0000.5182 and Opinion number 1.718.517.

RESULTS AND DISCUSSION

In order to achieve a better understanding of the results of this research, the data were grouped into eight categories: 1. Sociodemographic data of patients in the postoperative period of feeding-related stomas; 2. Indication of gastrostomy and jejunostomy; 3. Clinical conditions for the indication of gastrostomy and jejunostomy; 4. Preoperative care; 5. Operative technique used; 6. Type of tube used and postoperative complications of patients with gastrostomy and jejunostomy; 7. Type of diet in the postoperative period; 8. Hospitalization time and patient outcome.

1. Sociodemographic data of patients in the postoperative period of feeding-related stomas

According to the sociodemographic data, the public most affected was the male (69%), brown (73.8%), married (40.5%), with low level of education (28.6%), being retired (38.1%) or growers (31.0%), living in the urban area (88.1%), all in masonry houses; the majority did not have religion (78.6%), of which 16.7 % were Catholics; in most medical records, the income was also not specified (64.3%). In those who had an opinion on social assistance, 9.5% had family income below one minimum wage; 14.3% of 1-2 minimum wages, 9.5% of 3-4 wages and 2.4% more than 4 wages, that is, of those that were listed, the majority was 1-2 minimum wages. According to age, this ranged from 18-93 years, with an average of 59.9 years and standard deviation of 19.6, which points out that gastrostomy/jejunostomy is indicated for older people.

The highest prevalence of cases happens with male audiences. A study conducted with patients undergoing feeding-related stomas revealed that about 88% were men, with an average age of 58.4 years, minimum and maximum age of 19-87 years, respectively[2], data that come close to the of this research.

The INCA Guidelines for cancer surveillance related to work (2013) points out that occupation influences the development of comorbidities, and work in agriculture is one of the risk factors for the development of esophageal and stomach cancer due to exposure to toxic agents and fossil fuel vapors. Genetic factors, inadequate diet, rich

REVISTA ENFERMAGEM ATUAL IN DERME

in salt, for example, contribute to the development of gastric and esophageal cancer, while a diet rich in vegetables, legumes and fruits reduces this risk, since they contain oxidizing substances such as vitamin C, fibers, among others that have this preventive function [3-4]. Social determinants, such as income, occupation/or profession, housing conditions, food, education level, smoking and drinking, among others, contribute to the onset of several comorbidities. A study evaluating the profile of patients with gastric cancer also showed that it is common in the male audience, and that the level of education in about 69% was low [5-6]. In this study, at least 38.1% of the patients were ex-smokers and 31% were ex-alcoholics, which increases the predisposition to illness, given that they are inappropriate lifestyle habits that could be changed and thus collaborate with the reduction of several comorbidities.

According to the Brazilian Ministry of Health (2014), alcohol abuse is considered as ingesting five or more doses of alcoholic beverages for men and four or more doses for women, on a single occasion, in the last 30 days. Data from the National Health Survey (2013) indicate that alcohol consumption is more common in young adults (18-29 and 30-39 years), with a prevalence of 21.6% for men, while for women it is 6.6%, with frequent use in black and indigenous individuals, in smokers, in those who consider their health to be good or very good and also in those who live in the urban area [7]. This may justify the prevalence of this type of cancer in the male population according to several other studies.

Given the above, public policies aimed at reducing alcohol consumption are of great relevance, since they would contribute to the reduction of chronic non-communicable diseases, a goal launched globally by the World Health Assembly of 2015-2025, including among other risk factors, the reduction of cigarettes and alcohol consumption. Nonetheless, in Brazil, there is a great dissociability of interests, since it is a commercial branch that contributes to the very economy of the country, and that is why it is widely accepted and common [7].

2. Indication of gastrostomy and jejunostomy

Of the 42 patients who underwent the stoma, 37 went for food, while the others went for gastric decompression. Gastrostomy or jejunostomy for gastric or intestinal decompression is used as an alternative means to drain some content in cases of gastric or intestinal obstruction due to inoperable malignancy, such as pancreatic cancer, peritoneal carcinomatosis, colorectal or gastric cancer [8].

3. Clinical conditions for indication of the surgical procedure

REVISTA ENFERMAGEM ATUAL IN DERME

Table 01 shows the clinical conditions that led to gastrostomy or jejunostomy.

Table 01 – Clinical conditions that indicated Gastrostomy/Jejunostomy surgery, Campina Grande, PB, Brazil, 2018.

Variable	n	%
Difficulty swallowing due to neurological conditions	12	28.6
Luminal obstruction due to malignant disease	12	28.6
Esophageal neoplasm	6	14.3
More than one condition	6	14.3
Impossibility of receiving caloric intake by OV in the long term	3	7.1
Head and neck neoplasm	2	4.8
Esophageal stenosis	1	2.4
TOTAL	42	100.0

Source: Research data, 2018.

Of the luminal obstruction due to malignant disease, of the 42 participants, 28.6% of them were diagnosed with different types of gastric cancer and were diagnosed as: Malignant neoplasm of pyloric antrum (1), moderately differentiated gastric adenocarcinoma (1), gastric adenocarcinoma of signet ring cells (1), antral adenocarcinoma (1), gastric adenocarcinoma with metastasis (2), Borrmann IV gastric neoplasm (1), Borrmann gastric neoplasm II (1), Borrmann gastric neoplasm III (1), Borrmann gastric neoplasm IV-T4N2M1 (1), Borrmann antrum gastric adenocarcinoma (1) and gastric tubular adenocarcinoma (1).

From the difficulty in swallowing due to neurological conditions in 28.6%, the following conditions were present: Amyotrophic Lateral Sclerosis-ALS (02), Traumatic Brain Injury- TBI (04), Hemorrhagic/ischemic Stroke (06).

Of the 06 (14.3%) participants who had esophageal cancer, at least six different types of cancer were identified. Of these, only two underwent a jejunostomy; and, in the others, percutaneous endoscopic gastrostomy (02) and surgical gastrostomy (02).

Another condition was the impossibility of receiving caloric intake by OV in the long term (7.1%), whose present comorbidities were: Parkinson (01); cerebral palsy (01); prolonged clinical condition in the ICU associated with other conditions (01). In the other 14.3%, more than one condition was presente, which indicated the need for enteral support, and another 4.8% were related to head and neck neoplasm.

REVISTA ENFERMAGEM ATUAL IN DERME

According to an INCA estimate, in 2020, in Brazil, stomach cancer ranks 4th among the 10 most common types of cancers. It is estimated that new cases of stomach cancer for 2020, 2021 and 2022 are 13,360 in men and 7,870 in women, thus highlighting that it is a common cause in both genders, which may favor the performance of these two types of surgery for nutritional support.

A study shows results similar to this research, where, of the clinical indications for gastrostomy, 76.1% were neurological conditions, while neoplastic conditions represented the second cause for the procedure [9].

4. Preoperative care

Table 02 shows the care procedures that were analyzed in patients undergoing feeding-related stomas.

Table 02: Skin care preoperatively and intraoperatively in patients undergoing feeding-related stomas, Campina Grande, PB, Brazil, 2018.

Variable	n	%
Trichotomy		
No	26	62
No content included	16	38
Degermation in the Surgical Center		
No content included	24	57.1
Yes	18	42.9
Bathing		
No content included	25	59.6
Yes	17	40.4
TOTAL	42	100.0

Source: Research data, 2018.

It is important to note that information such as bathing and skin antisepsis in the operating room was not documented, and therefore it is a problem that needs to be reassessed in every care context, both by the nursing professional and by the medical professional, because the correct registration of the information it is necessary in the context of care. These are basic care procedures that collaborate with the reduction of surgical complications, considering that the number of surgical procedures has been increasing concomitantly with the updating of surgical techniques, with an estimated 187-281 million surgeries being performed, which represents a surgery a every 25 individuals.

REVISTA ENFERMAGEM ATUAL IN DERME

Conversely, there are several complications, ranging from 3-16%, and deaths from 5-10% in underdeveloped countries, an aggravating number that requires attention both for these damages and for the cost to public coffers [10].

A study that followed-up the oropharyngeal bacterial colonization of 274 patients undergoing PEG in those with neurological disorders and neoplasm identified 14 types of microorganisms through oropharyngeal swabs. In 57% of patients, the same microorganism was found in both the oropharynx and peristomal regions, which had caused local infection, concluding that microbial screening can be a marker of peristomal infection, a common complication in cancer patients[11]. Therefore, perioperative care is extremely important to reduce these rates, such as bathing, oral hygiene with 0.12% chlorhexidine, among other precautions that are essential to reduce complications [10]. Although, a study does not show the effectiveness of using solutions of 4% chlorhexidine gluconate, 10% degerming polyvinylpyrolidone iodine (PVP-I) or soap without antiseptic during the bathing to prevent infection of the surgical site, this is a recommended care in the preoperative [12].

5. Operative technique used

The operative techniques used were: Percutaneous Endoscopic Gastrostomy-PEG, 19 (45.2%), Jejunostomy, 15 (35.7%), and Surgical Gastrostomy, 08 (19.0%). PEG is the most widespread, because it has lower cost and less complications for patients, because it is less invasive, causes less surgical trauma, in relation to other techniques for insertion of feeding tubes [13].

6. Type of tube used and postoperative complications of patients with gastrostomy and jejunostomy

The types of probes used were: Foley probe, 18 (43%), silicone probe, 10 (23.8%), Nelaton probe, 04 (9.5%) and Mickey, 01 probe (2.3%), while in 9 medical records (21.4%) had no description of the type of probe used.

Table 03 shows the number and frequency of complications present in patients undergoing gastrostomy and jejunostomy.

Table 03: Postoperative complications of feeding-related stomas, Campina Grande, PB, Brazil, 2018.

Variable	n	%
Pain	22	52.4
Other complications	18	42.9
Presence of exudate	15	35.7

REVISTA ENFERMAGEM ATUAL IN DERME

Dermatitis	14	33.3
Peristomal infection	10	23.8
Hemorrhage	9	21.4
Leakage of the diet	7	16.7
Bronchoaspiration	3	7.1
Probe Migration	2	4.8
Early loss of the probe	2	4.8
Peritonitis	2	4.8
Periestomal burn	2	4.8
Probe collapse	2	4.8
Peristomal edema	1	2.4
TOTAL	42	100.0

Source: Research data, 2018.

Complications were more frequent in those patients who used a Foley probe (urethral insertion device that is used for gastrostomy/jejunostomy), with at least 15 (35.7%) complications: pain, hemorrhage, presence of fecaloid, presence of peristomal exudate, operative wound dehiscence, dermatitis, peritonitis, peristomal burn, peristomal infection, edema of the abdominal wall, sepsis, leakage of the diet around the tube, frequent emesis, bronchoaspiration and acute respiratory failure. It is noteworthy that each patient had or one or more of these complications, some more serious and others less complex. Of the total patients with Foley probe (18 patients), only three had no complications.

The silicone probe also demonstrated several complications, which were: leakage of the diet around the tube, collapse of the tube, presence of exudate around the tube, peristomal infection, bronchoaspiration, gastroesophageal reflux, peristomal dermatitis, severe pain, operative wound dehiscence and surgical re-approach to gastrostomy. Accordingly, of the total of ten patients with a silicone tube, at least four had these complications, and the others (six patients) did not have any complications.

Patients with Nelaton probe also manifested: diarrhea, peristomal infection, peristomal dermatitis, nausea and fecaloid vomiting, peristomal pain, presence of exudate. Only one patient had no complications. Even in those where the type of probe had not been documented, eight of them had complications. Moreover, in a patient that the Mickey probe was placed,

REVISTA ENFERMAGEM ATUAL IN DERME

there were complications and the Foley probe was inserted.

Foley type probes cause many complications. The standard PEG tubes (which have the outer ring/bumper) prevent the probe from migrating completely to the stomach and duodenum, unlike the Foley probe, which does not have it, but is still frequently used due to financial accessibility [14]; however, studies reveal that patients using this probe have multiple complications and conclude that its use should be abolished in clinical practice due to the multiple interventions that could be avoided in these patients [15-16].

Pain is a subjective symptom and causes psychological and physical stress. Open or laparoscopic gastrostomies have been related to postoperative pain-like complications when compared to other probe insertion techniques; but, in patients with severe stenosis, head and neck cancer, as well as esophageal malignancy, these techniques are indicated [17].

7. Type of diet in the postoperative period

At least 10 types of diet were identified in the medical records, each of which was described in the first item of the medical prescription, updated daily according to hospital routine. The most common type of diet was the liquid proof (52.4%), 5% glucose solution (14.3%) directly in the gastrostomy or jejunostomy, a small portion represents the 0.9% physiological solution diet (4.8%) and the others were varied, being: diet without residues, for hypertensive, for hypertensive and diabetic, hyperprotein and/or hypercaloric, hypoglycemic, hyperprotein and/or hypercaloric, free diet; only one patient had no diet and there were no diets in three medical records. The diet starting time ranged from 1 hour (minimum starting time) to 192 hours (maximum time).

Different ideologies regarding the introduction of the diet in the postoperative period persist, and thus many institutional protocols are developed according to their realities. According to the ACERTO Protocol (a Portuguese acronym for “Accelerated Total Postoperative Recovery”), the return of gastrointestinal transit differs in each anatomical part of the gastrointestinal tract: that of the stomach returns in 24 hours, small intestine from 5 to 7 hours, the right colon from 24 to 48 hours and the left colon from 36 to 60 hours. Thus, patients who underwent gastrointestinal surgeries are offered a liquid diet on the same day, as long as they do not present vomiting and there is good acceptance [18]. A study conducted with 117 patients undergoing PEG, evaluating the type of food introduction in the postoperative period, in liquid and semi-solid diet, concluded that the administration of the semi-solid diet in almost half of these patients contributed to the reduction of adverse events, mainly gastroesophageal reflux and, consequently,

REVISTA ENFERMAGEM ATUAL IN DERME

pneumonia due to bronchoaspiration. It was also noted that the length of hospital stay was reduced in those who used a semi-solid diet, in addition to a lower rate of hospital readmission, indicating that it can be a first choice nutritional alternative [19].

8. Hospitalization time and patient outcome

The length of stay of patients for surgery ranged from 1 hour (minimum time) to 720 hours (equivalent to 30 days), with an average of 189.76 hours, equivalent to 7.9 days with a standard deviation of 193.6, indicating a similar length of hospital stay among most patients.

The length of stay in the postoperative period of these patients ranged from less than one day (minimum time) after gastrostomy replacement, or from 03 days to one month, the latter representing a rate of 54.8%, that is, the majority had prolonged hospitalization. Another 14.3% had a hospital stay of 1-2 months, being associated with complications after the procedure.

The prolonged length of stay in the postoperative period can be related to several factors, both because they are already hospitalized in other clinics of the aforementioned hospital, and only after the stabilization of the critical condition to perform the surgery or to receive the definitive diagnosis in order to perform it, which demanded more hospitalization time in the preoperative period, which may have had repercussions in the postoperative period; late administration of the diet; as well as the clinical condition of the patients, considering that most of them had cancer (52.4%) or were already admitted with malnutrition (52.4%). Patients with underlying chronic diseases, patients with malignant diseases and elderly patients may be susceptible to postoperative complications, with a higher risk of mortality when undergoing PEG [20].

The outcomes of the patients were: hospital discharge after gastrostomy/jejunostomy insertion (66.7%); readmission and discharge was 11.9%; readmission and death was 4.8%, mostly due to complications of the general medical condition; and 16.7% evolved to death. Of these deaths, five were caused by sepsis, a severe complication after gastrostomy/jejunostomy.

It can be considered that the number of deaths from sepsis in the public evaluated in this study was high due to the small population, because from a total of 42 patients, 11.9% died of sepsis. Thus, it is noted that the causes of mortality in patients undergoing gastrostomy/jejunostomy are related to both local and systemic complications, and that severe conditions such as sepsis can occur with great frequency, requiring effective care measures that collaborate to prevent it.

REVISTA ENFERMAGEM ATUAL IN DERME

CONCLUSION

The assessment of the epidemiological, clinical and therapeutic profile of patients undergoing gastrostomy or jejunostomy helped us to better clarify their therapeutic management. Most of the patients were male, with a habit of ex-alcoholics and ex-smokers, which are also factors that predispose to the comorbidities that indicated the performance of the procedure, which were predominantly gastric cancer or esophageal cancer, already in advanced stage.

The endoscopic gastrostomy procedure was the procedure commonly performed on patients in the analyzed period of time, and not unlike other studies. The effectiveness of this approach has improved the clinical outcome of patients, as it is a less invasive procedure than surgical gastrostomy. Nonetheless, even in the face of this practice that helps to reduce harm to patients, it was still possible to identify a high rate of morbidity, as shown by the presence of many postoperative complications related to the insertion of the feeding tube, where about thirteen minor complications severity and others of greater severity were noted.

The type of probe used may also be a predisposing factor for the development of complications, considering that the Foley tube was the most used, a device for urethral insertion, but which is widely used as a feeding tube in gastrostomized or jejunostomized patients. As the highest rate of complications were related to the tube, to local alterations of the peristomal skin, and also systemic, it is suggested that its use should be a less common practice, because the affordability that the product offers compared to other probes indicated for feeding in gastrostomy or jejunostomy is temporary, considering that in a short postoperative period several complications are already verified, and such use may limit the use of the Foley probe. It is worth mentioning that the other types of probe also brought these risks, such as the silicone probe, but that the complication rate of patients who used it was lower and the benefit was quite expressive, since at least six of them had no complications.

The identification of several factors could allow the conclusion that the postoperative complications have a multivariate origin, since it involves the underlying disease of the patient, the level of malnutrition, the current or previous life habits, the heredity, the hospitalization time in the pre- and postoperative periods, the time to start the diet/fasting time that the patient faces that generates physiological stress; the trauma related to the surgical procedure and the individual ability to react to this stress, the type of probe used, the pre and postoperative nursing care. All these factors are indicative of what outcome the patient will receive, whether discharge, hospital readmissions to treat complications, or death when these are

REVISTA ENFERMAGEM ATUAL IN DERME

not reversed. It was also identified a high frequency of absence of important information in the records of the surveyed patients, which can harm the assistance and make research difficult, since it interferes in the evaluation of several indicators.

REFERENCES

1. Lucendo AJ, Friginal-Ruiz AB. Percutaneous endoscopic gastrostomy: An update on its indications, management, complications, and care. Rev esp enferm dig. [Internet]. 2014 [acesso em 24 de out 2020]; 106 (8):529-539. Disponível em: https://pubmed.ncbi.nlm.nih.gov/25544410/

2. Anselmo CA, Tercioti VJ, Lopes LR, Souza JCN, Andreollo NA. Gastrostomia cirúrgica: indicações atuais e complicações em Gastrostomia cirúrgica: indicações atuais e complicações em pacientes de um hospital universitário. Rev Col Bras Cir [Internet]. 2013 [acesso em 24 de out 2020]; 40: 458-46. Disponível em: https://www.scielo.br/scielo.php?script=sci_arttext&pid=S0100-69912013000600007

3. Mota OM, Curado MP, Oliveira JC, Martins E, Cardoso DMM. Risk factors for esophageal cancer in a low-incidencearea of Brazil. Med J. [Internet]. 2013[acesso em 24 de out 2020]; 131(1):27-34. Disponível em: https://www.scielo.br/scielo.php?script=sci_arttext&pid=S1516-31802013000100002

4. Ferrari F. Estudo dos Fatores de Risco associados ao câncer gástrico pela análise de bancos de dados populacionais [Monografia]. Joinville: Universidade da Região de Joinville; 2013.

5. Ministério da Saúde (BR). Determinantes sociais, econômicos e ambientais da saúde. A saúde no Brasil em 2030 - prospecção estratégica do sistema de saúde brasileiro: população e perfil sanitário. Rio de Janeiro. 2013; 2: 19-38.

6. Carvalho FLN. Análise do perfil clínico, epidemilógico e histopatológico do câncer gástrico na população de Roraima [Dissertação]. Roraima: Universidade Federal de Roraima; 2016.

7. Garcia LP, Freitas LRS. Consumo abusivo de álcool no Brasil: resultados da Pesquisa Nacional de Saúde 2013. Epidemiol. Serv. Saúde [Internet]. 2015 [acesso em 24 de out 2020]; 24(2): 227-237. Disponível em: http://scielo.iec.gov.br/scielo.php?script=sci_arttext&pid=S1679-49742015000200005

8. Kawata N, Kakushima N, Tanaka M, Sawai H, Imai K, Hagiwara T, Takao T, Hotta K, Yamaguchi Y, Takizawa K, Matsubayashi H, Ono H. Percutaneous endoscopic gastrostomy for decompression of malignant bowel obstruction. Dig Endosc [Internet].2014 [acesso em 24 de out 2020]; 26(2):208-13. Disponível em: https://www.researchgate.net/publication/239945587_Percutaneous_endoscopic_gastrostomy_for_decompression_of_malignant_bowel_obstruction

9. Ferreira Filho J. Ampliação do acesso à gastrostomia endoscópica por meio da revisão de práticas gerenciais e operacionais [Dissertação]. Ribeirão

Preto: Universidade de São Paulo; 2015.

10. Ministério da Saúde (BR). Anvisa. Medidas de Prevenção de Infecção Relacionada à Assistência à Saúde. Brasília; 2017.

11. Kroupa R, Jurankova J, Dastych M, SenkyrikM, Pavlik T, Prokesova J,Jecmenova, Dolina J, Hep A. Different Clinical Utility of Oropharyngeal Bacterial Screening prior to Percutaneous Endoscopic Gastrostomy in Oncological and Neurological Patients. Biomed Res Int [Internet]. 2014 [acesso em 24 de out 2020]; 2014: 59089. Disponível em: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4163457/ https://pubmed.ncbi.nlm.nih.gov/24976711/

12. Franco LMC, Almeida AGI, Duarte GMH, Lamounier L, Pinto TS, Pereira PFS, Chianca TCM, Ercole FF. Efeitos do banho pré-operatório na prevenção de infecção cirúrgica: estudo clínico piloto. Rev Min Enferm [Internet]. 2017 [acesso em 24 de out 2020]; 21:e-1053. Disponível em: https://pesquisa.bvsalud.org/portal/resource/pt/bde-32207

13. Rahnemai-Azar AA, Rahnemaiazar AA, Naghshizadian R, Kurtz A, Farkas DT. Percutaneous endoscopic gastrostomy: Indications, technique, complications and management. World J of Gastroenterol [Internet]. 2014 [acesso em 24 out 2020] 20(24): 7739-7751. Disponível em: out 2020]; 23(7):360-2, 364. Disponível em: https://pubmed.ncbi.nlm.nih.gov/24732987/

14. Fonseca J, Nunes G, Patita M, Barosa R, Santos CA. Catheter traction and gastric outlet obstruction: a repeated complication of using a Foley catheter for gastrostomy tube replacement. Nutr Hosp [Internet].2017 [acesso em 24 out 2020]; Mar 30;34(2):499-501. Disponível em: https://pubmed.ncbi.nlm.nih.gov/28421810/

15. Metussin A, Sia R, Bakar S, Chong VH. Foley Catheters as Temporary Gastrostomy Tubes: Experience of a Nurse-Led Service. Gastroenterol Nurs [Internet]. 2016 [acesso em 24 out 2020]; 39(4):273-7. Disponível em: tps://pubmed.ncbi.nlm.nih.gov/27467058/

16. Ojo, O. Problems with use of a Foley catheter in enteral tube feeding. Br J Nurs [Internet] 2014 [acesso em 24

17. Mizrahi I, Garg H, Divino CM, Nguyen S. Comparison of Laparoscopic Versus Open Approach to Gastrostomy Tubes. JSLS[Internet].2014 [acesso em 24 out 2020]; 18 (1): 28-33. Disponível em: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3939338/

18. Nascimento JEA. Acerto: Acelerando a recuperação total pós-operatória. 3 ed. Rio de Janeiro. Rubio; 2016.

19. Toh Yoon EW, Yoneda K, Nishihara K. Semi-solid feeds may reduce the risk of aspiration pneumonia and shorten postoperative length of stay after percutaneous endoscopic gastrostomy (PEG). Endoscopy International Open.[Internet].2016 [acesso em 24 out 2020]; 04: E1247–E1251.

20. Pih GY, Na HK, Ahn JY, Jung KW, Kim DH, Lee JH, Choi KD, Song HJ, Lee GH, Jung HY. Risk factors for complications and mortality of percutaneous endoscopic gastrostomy insertion. BMC Gastroenterology [Internet]. 2018 [acesso em 24 out 2020]; 18:101. Disponível em: https://bmcgastroenterol.biomedcentral.com/articles/10.1186/s12876-018-0825-8

Submission: 2021-01-12
Approval: 2021-03-23