

Perception of nurses about preoperative fasting

Percepção de enfermeiros quanto ao período de jejum pré-operatório

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RESUMO

Objetivou-se determinar o período de jejum pré-operatório e identificar a percepção dos enfermeiros quanto a este período das cirurgias gerais. Refere-se sobre um estudo de natureza descritiva com abordagem qualitativa. A pesquisa foi realizada na enfermaria cirúrgica de um Hospital localizado no estado do Rio de Janeiro. Os sujeitos desse estudo foram enfermeiros e Residentes de enfermagem. A coleta de dados foi realizada entre agosto a setembro de 2017, por entrevista semiestruturada. A análise de dados foi fundamentada em Bardin. A partir das unidades de registro, foram elaboradas duas categorias: Período de jejum pré-operatório nas cirurgias gerais e Percepção dos enfermeiros quanto ao período de jejum pré-operatório. Conclui-se que o tempo de jejum pré-operatório se apresenta na faixa de 10 a 12 horas, e os enfermeiros das unidades de clínicas cirúrgicas reconhecem a importância em controlar este período, mantendo na faixa de 6 a 8 horas.

Palavras-chave: Jejum; Período Pré-Operatório; Cirurgia Geral; Período Perioperatório.

ABSTRACT

The objective was to determine the preoperative fasting period and to identify the nurses' perception about such period in general surgery. It is a descriptive study with qualitative approach. The research was carried out in the surgical ward of a hospital localized in the state of Rio de Janeiro. The subjects of this study were nurses and nursing residents. The research was approved by the technical advice of CEP: n° 2.269.844. The data collection was made between August and September of 2017, by semistructured interviews. The data analysis was based on Bardin. Starting by the register units, two categories were elaborated: Preoperative fasting period in general surgery and Perception of the nurses about the preoperative fasting period. It was concluded that the time of preoperative fasting is presented into the range between 10 and 12 hours, and the nurses of the surgical clinic's units recognize the importance of controlling this period, keeping it into the range between 6 and 8 hours.

Key-words: Fasting, preoperative period, perioperative period, general surgery

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INTRODUCTION

Due to the increasing number of surgeries and surgical complications, infections and other postoperative morbidities have become a serious concern worldwide. Based on this, WHO hosted the Fifty-fifth World Health Assembly in Geneva, in which patient health issues were analyzed, initiating the creation of the World Alliance for Patient Safety in 2004. This alliance overcame challenges in the mid of 2007 and 2008, in order to prevent surgical site infections, anesthesia and safe surgical teams, and indicators of surgical care⁽¹⁾.

The preoperative fasting period from 8 to 12 h is prescribed based on Mendelson's analyzes in mid-1946, which formed the connection between eating and bronchoaspiration of gastric contents. Currently, this experimentally adopted period of fasting is still practiced, even in the era of Evidence-Based Practices⁽²⁾. However, surgical patients who undergo prolonged perioperative fasting may have a worsening of their metabolic response to surgical trauma, contributing to postoperative complications and interfering with nursing care.⁽¹⁾

However, fasting may lead to anxiety, hunger and thirst before surgery, and discomfort in perioperative patients. From the metabolic point of view, prolonged fasting results in decreased insulin levels, increased glucagon and increased insulin resistance associated with postoperative hyperglycemia, due to the decrease of insulin availability for peripheral tissues and difficulty in capturing glucose⁽²⁾.

Insulin resistance is a transitory phenomenon and resembles the metabolic state of Type 2 Diabetes Mellitus, which can be prolonged for up to three weeks after surgery, which intensifies the metabolic stress of the post-surgical patient, besides contributing to the increased postoperative complications and infection rates and mortality⁽³⁾.

Generally, this happens in the first postoperative days and can be caused by several interconnected factors during the long period of preoperative fasting and the reduction of carbohydrate intake, interfering with the surgical recovery and, consequently, delaying cicatrization⁽⁴⁾.

For a long time, the practice of traditional fasting (a fasting period of 8-12 hours) has been used for safety reasons, a practice that has been changing over the years. It is recommended that such period is reduced through the implementation of new institutional protocols, in order to obtain an improvement in the postoperative recovery⁽⁵⁾.

Nowadays, many guidelines (the American Society of Anesthesiologists-ASA, NAGCG, the Association of Anaesthetists of Great Britain and Ireland -AAGBI), based on the European Enhanced Recovery After Surgery (ERAS) and grounding on the paradigm of evidence-based medi-

cine, recommend clear liquids two hours before the operation. ASA, for example, have more liberal practice recommendations for fasting, allowing the ingestion of clear liquids (water, tea, coffee and juices without residues) up to two hours before the operation, seeking comfort and optimization of patients' postoperative recovery⁽⁵⁾.

For the other patients, it was proved within the presented guidelines that fasting for two hours, shortened by beverages containing carbohydrates, was not only safe but recommended for a faster recovery of the surgical trauma, and the multiprofessional participation of nurses and nutritionists is of great importance to obtain better results, punctuating the main changes in the postoperative period and providing the necessary care to the patient⁽⁵⁾.

In Brazil, in mid-2005, a new protocol called ACERTO was implemented at the Júlio Muller University Hospital of the Federal University of Mato Grosso, a project composed of a multidisciplinary team that aimed to accelerate the total postoperative recovery, showing efficacy in the pre-term and postoperative⁽⁶⁾.

The continuous and direct action of the nursing professional in patient care, together with the multiprofessional health team, is fundamental for the specialized, safe and quality care. All this effort is associated with patient satisfaction, which is no longer subjected to long periods of stress caused by excessive fasting. It directly interferes with the outcome of the surgical procedures, as well as the recovery of the user, making general surgeries safer for physicians and patients⁽⁷⁾.

Thus, in view of the various interferences of prolonged fasting and the evidence that shorter periods of fasting can be performed through protocols and controls, it is important to systematically control the period of preoperative fasting to minimize perioperative complications. What is the preoperative fasting period? What is the perception of nurses regarding the period of preoperative fasting in general surgeries?

Thus, the following objectives emerged: to determine the preoperative fasting period and to identify nurses' perceptions regarding the preoperative fasting period of general surgeries.

METHOD

This is a descriptive-exploratory case study with a qualitative approach. The research was performed in the general surgery ward of a Hospital located in the state of Rio de Janeiro. The choice of the scenario occurred due to the relevance of the unit in performing nursing care to patients submitted to general surgeries, besides containing a research development and the possible reach of the goals, in an impartial manner⁽⁸⁾.

The subjects of the study were the nurses who work

in the general surgery sector ward. The following inclusion criteria were taken into account: Time of training (at least one year) and work, specialists in surgical center and / or surgical clinic, experience in the surgical clinical sector, and subjects who have already worked with patients in the perioperative period of general surgeries. The exclusion criterion was defined by nurses who presented some situation that made it impossible for them to participate in the interview, as well as those who did not fit the inclusion criterion.

The data collection was performed through a semi-structured interview. The interviews were recorded and transcribed. The authors were responsible for custody and elimination after five years. To guarantee the anonymity of the interviews, each interviewee received an identification code.

The data collection period occurred from August to September, 2017. Ten semi-structured and recorded interviews were carried out with seven Nursing Residents in Surgical Clinic, with experience in the General Surgery sector, and three nurses, two females and one male who work in the Surgical Clinic with experience with patients in the pre and postoperative period of General Surgeries.

The ethical criteria for research involving human beings were respected, as required by Resolution No. 466/12 of the CNS of the National Health Council. Approved through the CEP's opinion: No. 2.269.844. Pseudonyms were used with letters to keep the confidentiality of anonymity. The subjects participated in the study only after the signing of the Informed Consent term⁽⁹⁾.

Data analysis is a scientific research tool with many functions. It was based on Bardin, who presents three stages in his analytical process: pre-analysis; exploitation of the material or coding; and treatment of results, inference and interpretation⁽¹⁰⁾.

In the pre-analysis, we performed the reading of the transcribed interviews and the choice of speeches to be analyzed. Subsequently, in the second stage of the process, categories were defined, according to the inherent characteristics of the subject presented in the text. And, finally, the codified information was compacted and considered, in order to contribute with critical and reflexive conceptions of the analysis⁽¹¹⁻¹²⁾.

Therefore, the data obtained from the questionnaire application with semi-structured questions were recorded, transcribed and stored in spreadsheets, analyzed, discussed and revealed in the form of categories that were defined according to the thematic approach.

RESULTS

Characterization of the interviewed subjects

The study was composed of 10 interviewees, presenting the following profile: surgical nurses, nine females and

one male. The age of the interviewees ranged from 25 to 58 years old; and training / work time ranged from one year and five months to 33 years. All interviewees have experience in surgical clinics, mainly in General, Vascular and Thoracic Surgery, and some also have experience in Nursing areas, such as: Obstetrics, Emergency, CTI and Nursing Management in Network Assistance.

Through the analysis of the record units, two categories emerged: preoperative fasting period in general surgeries and nurses' perception of preoperative fasting period.

Category 1 - Preoperative fasting period in general surgeries.

Based on the results obtained in the semi-structured interviews, we observed that the patients go through long periods of fasting, ranging from 10 to 12 hours, taking into account that in the unit, the surgeries are scheduled to start at eight o'clock, with fasting starting from the 22hs the day before. Some situations may extend this period due to interferences in the Surgical Center, such as emergency surgeries, which may lead to the cancellation of the procedure.

The statements of the deponents below illustrate the picture and confirm that the periods of fasting are long:

With surgery scheduled for 8 o'clock, he started fasting at 10pm the previous day [...] an emergency came in, and it is not known when this patient will be able to get the surgery (A)

Patients here spend a lot of time fasting. Sometimes surgery is only in the afternoon and the patient has been fasting from 10 pm until the time of surgery. (B)

Unfortunately, there is no schedule here. Sometimes, innumerable patients go on prolonged fasting and they cancel the surgery (C).

Patients are on stand-by, ie they are fasting and will have to wait for all the surgeries to end (D).

And sometimes the surgery is suspended ... until being able to go back to their diet ... this patient keeps fasting [...] (E)

Category 2 - Nurses' perception of preoperative fasting period.

The nurses reported that the time required for preoperative fasting should be between six and eight hours, with no longer period required. Most patients undergoing general surgeries in the unit are exposed for a long and unnecessary time of fasting.

[...] 8 hours. This is the common time here, but it is not the exact time here [...] (Enf B).

So, the standard fasting time here is always from 10pm or from midnight. But the main problem is that this is usually very good for the patients who are the first to be called, if it is the patient to follow, possibly there would be no need for him to start fasting at 10 o'clock at night, he should fast in a second time, or maybe at 10 o'clock in the morning, because they start being called at 2 o'clock in the afternoon, for exam-

ple, when the surgery ends ... That's the worst question, but I think the ideal would be five or four hours of fasting. (Enf C)

[...] I think eight hours would be the essential. It would not have to be 12 hours. [...] (Enf D).

[...] Ah! Six to eight hours is fine. No need for those 12hrs fasting. Sometimes bam, it turns to an 18 hour fast. The patient does not need it, not at all. (Enf E)

[...] I think at most eight hours. It does not have more than that, it has already surpassed it. [...] (Enf I).

DISCUSSION

The results show that the patients remain fasting for periods of 10 to 12 hours, while the surgical units seek a period of 8 hours. However, there are factors that end up contributing to the delay of the beginning of the surgery, thus increasing the periods of fasting. Thus, it is important to monitor this period, to reach the fasting period proposals, as well as the organization of the surgical procedures within the schedule stipulated by the daily surgical map and reach the goals of the accomplishment of the elective surgery ⁽¹³⁾.

The period of preoperative fasting also has an influence on the number of surgeries to be performed, since the subsequent general surgeries of the surgical map may contribute to the prolongation of the fasting time, being a highlight point, compared to the occasions of the more than one surgery being performed on the same day. In this way, patients remain waiting for the end of the preliminary surgeries, further contributing to the prolongation of the preoperative fasting period over eight-hour periods (13).

This aspect should be punctuated by the nurses to fulfill the control of the preoperative fasting period in a judicious way, since its prolongation leads to innumerable metabolic alterations, such as: hypoglycemia, development of insulin resistance, as well as alteration in the production of the pancreatic hormones glucagon and the growth hormone, altering the metabolic rate of the patients ⁽²⁾.

On the other hand, studies show that the fasting period of the investigated sample did not present a relationship with the gastrointestinal complications developed, that is, even in the small fasting period, average of 133.5 minutes, did not present a statistical relationship with the complications, such as nausea and vomiting ⁽²⁾.

The American Society of Anesthesiologists (ASA) recommends a 2-hour pre-operative fasting for liquids without residues such as carbohydrate-rich beverages, coffee, fruit juices without pulp, tea, and water. For solids, six hours are recommended for light meals and eight hours for complete meals ⁽¹³⁾.

We perceived a consensus among the deponents regarding the ideal preoperative fasting time, which should not exceed eight hours, judging it unnecessary to extend

more than this. Even though they are not currently practiced in the unit, the interviewees' understanding is in accordance with ours, and they agree with excerpts from the above literature, which confirm that it is beneficial for both the team and the patients to reduce excessive fasting time ⁽¹⁴⁾.

Another study observed the implementation of a protocol to reduce the preoperative fasting period by comparing one group with traditional and another group who ingested fluids up to two hours before surgery. The results showed lower frequency of complaints such as nausea, thirst and headache, that is, improving their comfort without elevating surgical risks ⁽¹⁵⁾.

We also highlight the psychological disturbances generated by the fasting period, such as increased anxiety and irritability of these patients, which contributes to physiological changes, such as tachycardia and arterial hypertension, contributing even more to the destabilization of the patient and to the discomfort already experienced at the surgical moment, and cause negative effects in its postoperative recovery ⁽¹⁶⁾.

It is known that there is a close relationship between anxiety symptoms and preoperative depression and the postoperative evolution of cardiac surgery. Thus, the psychological aspects should also be a focus of attention of the nurses, through individual orientations, group orientation and patient reception ⁽¹⁷⁾.

Another important aspect pointed out by the professionals refers to the surgical suspension, which in addition to the emotional stress of the patient being potentiated, also interferes in a negative way for the metabolic control. In these cases, the patient experiences long periods of fasting, being necessary to be submitted to another period of fasting, further favoring insulin resistance, predisposition to hypoglycemia and development of diabetes. The literature shows that the reduction of the fasting period contributes significantly to the postoperative recovery of patients ⁽¹⁸⁾.

Thus, it is the responsibility of the multidisciplinary team, including the nurses, to monitor the fasting period and thus favor the achievement of the control of aseptic techniques in trans-operative and postoperative complications. Nursing provides 24-hour care to patients, thus determines the patient's emotional balance, as well as fostering communication among multiprofessional teams for the patient's overall well-being at this time of great changes and the need for nursing staff ⁽¹⁹⁾.

Thus, during the perioperative period of the patients, nurses have the fundamental role of embracing and listening to these patients, and must capture the needs of care, as well as create trust bonds, contributing to problem solving and being the link with relatives, favoring the course of the perioperative period ⁽²⁰⁾.

It is therefore the creation of protocols that can standardize the systematization of nursing care and establish criteria for the accomplishment of the fasting period in a homogeneous and similar way, avoiding the prolongation of said period, as well as other perioperative care.

The professionals of the nursing team should carry out the care in a humanized and integral way, not only punctuating the technical matters of the surgical procedures, in order to favor the well-being of the individual, and thus contribute to a holistic improvement of the health of these patients.

The care should be directed to the surgical patient, so that they can express their needs, which are often not stimulated. It is noticed that integration between the biological factors and psychosocial factors directly influence the accomplishment of the surgical procedure in an integral way and propitiate the improvement of the quality of the nursing care to surgical patients.

CONCLUSION

With the result found in this study, we observed that the preoperative fasting time is in the range of 10 to 12 hours, even with evidence of the benefits brought by the reduction of this period, and that the nurses of the surgical clinic units recognize the importance in controlling this period because of innumerable postoperative complications. In their view, the period could be shorter, in the range of 6 to 8 hours, avoiding prolonged periods.

The control of the preoperative fasting time according to each surgical specificity is fundamental for the good clinical evolution of the patients, contributing to their satisfaction and rapid recovery, besides giving the

assistance team greater security in their care, as traditional method should only be reserved for patients whose clinical condition requires greater care, such as morbid obesity or major gastric-esophageal disorders.

It has been observed that, despite studies and experiments that prove the benefits of this practice, many still use traditional long fasting methods, resisting new and already established concepts of reduction of this time, which could help stabilize the patient's health, and therefore avoiding negative effects caused by periods of excessive fasting.

Thus, the participation of the assistance teams to be implemented in their work places is necessary, contributing in the elaboration of POPs (standard operating procedures) that define, guide, fix procedures and adopt reduced fasting, having effective participation in this elaboration all the teams that are part of the process. In this sense, nurses, being the direct caregivers of these patients, accompanied by effective communication between these teams and clarifications to the patient, and ensuring effective behaviors and prevention of the complications of prolonged fasting, in order to provide well-being and rapid recovery to the patient, discourage the antiquated practices of prolonged fasting, and encourage the application of new protocols.

In this way, the importance of the partnership of the academy with the assistance to the patients is evident, taking into account that this study serves as a differential, since it contributes so that the nurses can direct the nursing care to control the fasting period and thus minimize post-operative complications from interferences of glycemic variations.

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