PREVALENCE, INTENSITY AND DISCOMFORT OF THIRST IN SURGICAL PATIENTS IN THE IMMEDIATE POST-OPERATIVE PERIOD

Prevalência, intensidade e desconforto da sede no paciente cirúrgico no pós-operatório imediato

Prevalencia, intensidad y desconforto de la sed en el paciente quirúrgico en el post-operatorio inmediato

Leonel Alves do Nascimento[1]*, Thammy Gonçalves Nakaya[2], Marilia Ferrari Conchon[3], Aline Korki Arrabal Garcia[2], Isadora Pierotti[2], Viviane Moreira Serato[4], Lígia Fahl Fonseca[7]

ABSTRACT: Objective: To assess the prevalence, intensity and discomfort of thirst in the immediate postoperative period. **Method:** This is a cross-sectional, descriptive, quantitative epidemiological study conducted in a university hospital in the South of Brazil, from August to September 2012. The sample consisted of 386 patients in anesthesia recovery from elective and emergency surgeries. A semi-structured questionnaire was used, consisting of demographic, clinical, and thirst-related variables. **Results:** The prevalence of thirst was 78% (303 patients), with an average intensity of 6.94 (standard deviation — SD=2.2) and spontaneous complaint of thirst in 38.3% of the cases (116 patients). The discomforts reported were: dry mouth, search for water, hyposalivation, dry throat, dry lips, dry tongue and willingness to swallow. All discomforts presented a positive Pearson correlation as to the presence of thirst. **Conclusion:** Immediate postoperative thirst is intense, prevalent and with uncomfortable peripheral signs. These facts substantiate the need to intentionally identify, measure, evaluate and treat thirst in this period.

Keywords: Thirst. Nursing care. Perioperative nursing. Prevalence.

RESUMO: Objetivo: Avaliar a prevalência, a intensidade e o desconforto da sede no período pós-operatório imediato. **Método:** Estudo epidemiológico, transversal, descritivo, quantitativo, realizado em um hospital universitário do Sul do Brasil, de agosto a setembro de 2012. A amostra foi composta de 386 pacientes em recuperação anestésica de cirurgias eletivas e de urgência. Foi utilizado um questionário semiestruturado composto de dados demográficos, clínicos e variáveis relacionadas à sede. **Resultados:** A prevalência de sede foi de 78% (303 pacientes), com intensidade média de 6,94 (desvio padrão — DP=2,2) e queixa espontânea de sede em 38,3% dos casos (116 pacientes). Os desconfortos relatados foram: boca seca, procura por água, hipossalivação, garganta seca, lábios ressecados, língua seca e vontade de deglutir. Todos os desconfortos apresentaram correlação de Pearson positiva em relação à presença de sede. **Conclusão:** A sede no pós-operatório imediato é intensa, prevalente e com sinais periféricos desconfortáveis. Essas evidências fundamentam a necessidade da identificação, da mensuração, da avaliação e do tratamento do sintoma sede de forma intencional neste período.

Palavras-chave: Sede. Cuidados de enfermagem. Enfermagem perioperatória. Prevalência.

RESUMEN: Objetivo: Evaluar la prevalencia, la intensidad y el malestar de la sed en el período postoperatorio inmediato. **Método:** Estudio epidemiológico, transversal, descriptivo, cuantitativo, realizado em un hospital universitario del sur de Brasil, de agosto a septiembre de 2012. La muestra fue compuesta de 386 pacientes en recuperación anestésica de cirugías electivas y de urgencia. Se utilizó un cuestionario semiestructurado compuesto de datos demográficos, clínicos y variables relacionados con la sed. **Resultados:** La prevalencia de sed fue de 78% (303 pacientes), con una intensidad media de 6,94 (desviación estándar o standard deviation – SD=2,2) y queja espontánea de sed en el 38,3% de los casos (116 paciente). Las incomodidades reportadas fueron: boca seca, busca por agua, hiposalivación, garganta seca, labios secos, lengua seca y voluntad de deglutir. Todas las incomodidades presentaron correlación de Pearson positiva en relación a la presencia de sed. **Conclusión:** La sed en el postoperatorio inmediato es intensa, prevalente y con señales periféricas incómodas. Estas evidencias fundamentan la necesidad de identificar, medir, evaluar y tratar el síntoma de forma intencional en este período.

Palabras clave: Sed. Atención de enfermería. Enfermería perioperatoria. Prevalencia.

[1]Nurse; Doctoral student in Nursing at *Universidade Estadual de Londrina* (UEL) – Londrina (PR), Brazil.
[2]Nurse; Doctoral student in Nursing at UEL – Londrina (PR), Brazil.
[3]Nurse; PhD in Nursing by *Universidade de São Paulo* (USP). Member of the Study and Research Group on Thirst of UEL – Londrina (PR), Brazil.
[4]Nurse; master in Nursing at UEL. Member of the Study and Research Group on Thirst – Londrina (PR), Brazil.
[7]Nurse; PhD in Nursing, Adult Health Program at USP. Associate professor of the Nursing Department at UEL – Londrina (PR), Brazil.
*Corresponding author: leonel_lan@hotmail.com
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INTRODUCTION

Thirst is a vital human need originated in a complex neuro-hormonal signalling system that regulates hydro-electrolyte balance. Given that it is a subjective discomfort, it is characterized as a symptom and leads to an urge for searching and drinking water, so that it cannot be ignored[1-3].

Considering this multifactorial symptom, thirst can be better understood by analyzing individual factors that interfere with its onset and people's perception of it. Each patient experiences, evaluates and faces thirst in a different way, especially when associated with the stressful stimuli from the perioperative period[4,5].

The perception of thirst and the desire to drink liquids to achieve satiety are conditioned physiological processes in all human beings[6,7]. Surgical patients, especially, are even more thirsty for factors such as preoperative fasting, medications used and intraoperative blood loss. These stimuli result in negative behaviors, such as stress, anxiety, irritability and despair, which intensify thirst discomfort in the perioperative period[8-10].

Such discomfort is highly prevalent, reaching levels from 83.7[11] to 88.6%[12] in surgical patients in the immediate postoperative period220 (IPP). In addition, studies indicate that thirst presents high intensity (6.10[13], 8.17[11] and 8.70[14]) when measured by a numerical verbal scale (NVS), which ranges from zero to ten, with zero meaning no thirst and ten, the most intense thirst ever felt. The discomfort of thirst may also be expressed by patients through a set of peripheral symptoms, also called thirst attributes such as dry lips, dry mouth and throat, thick tongue and saliva, bad or bitter taste in the mouth, and a desire to drink water[2,3,15-17].

Although thirst is not normally considered an important factor for evaluation, measurement and treatment during patients' stay in the Post-Anesthesia Care Unit (PACU), one must pay attention to this discomfort, considering its complexity and the fact that it is one of the most stressful and impetuous human experiences in IPP[3,10].

OBJECTIVE

To assess the prevalence, intensity, and discomfort of thirst in surgical patients in the IPP.

METHOD

This is a cross-sectional, descriptive and quantitative epidemiological study performed in the PACU of a public and tertiary-level school-hospital in the South of Brazil. The institution has 313 beds, all available to the Brazilian Unified Health System (SUS). The surgical center (SC) has seven operating rooms (OR) and performs, on average, 640 surgeries per month.

The population consisted of adult and elderly patients, male and female, submitted to elective and emergency surgeries, who were in the IPP, in PACU. Inclusion criteria were: to be between 18 and 65 years of age and to report thirst spontaneously or when questioned. Patients who were discharged from the OR directly to the Intensive Care Unit (ICU), Inpatient Units or patients at home were excluded from the study, as well as patients who presented disorientation over time and space and impairment in their verbal communication.

The sample had 386 participants, considering a 95% confidence level and a sampling error of 5%. Data were collected from Monday to Friday, from 7 a.m. to 7 p.m., in August and September, 2012. It was conducted by Nursing students and Residents of Perioperative Nursing, who received training by the researcher responsible for the study, with the objective of maintaining methodological rigor and compliance with ethical aspects during data collection.

Data collection script included demographic, clinical and thirst-related variables, such as the presence of thirst, spontaneous complaints, thirst characteristics and discomfort intensity assessed by a NVS, ranging from 0 to 10, with zero meaning no discomfort and ten, the most intense discomfort ever felt. The discomforts evaluated: were dry lips, dry mouth, thick tongue, dry throat, hyposalivation, desire to swallow and search for water. Other variables were evaluated to understand factors that may characterize or interfere with the process of thirst, such as preoperative fasting time, orotracheal intubation and surgical procedures' length.

Data collection was divided into two moments: preoperative and postoperative. At the first moment, in the PACU, all patients who met the inclusion criteria were approached, oriented toward the research objectives and invited to participate in the study. All participants signed the Informed Consent. In the second moment, after the anesthetic-surgical procedure, the data collection instrument was applied in the PACU.

To evaluate thirst in the IPP, the patients' spontaneous verbalization was waited until the discharge from the PACU. When it did not occur, the researcher questioned the patient about the presence or absence of thirst. If so, a NVS was applied to assess the intensity of the symptom; then, the patient was asked to explain which characteristics were perceived as a result from thirst.

Data were entered in a spreadsheet in Excel 2010, and the statistical analysis was performed in the Statistical Products and Service Solutions (SPSS) program, version 20.0, considering significance level of 5%. Pearson's χ^2 test was used to correlate thirst and the referred characteristics.

The study complied with the conditions established by Resolution No. 466/2012 of the Brazilian National Health Council and was approved by the Ethics Committee of *Universidade Estadual de Londrina* (CEP-UEL) (CAAE: 02299412.6.0000.5231 – CEP 11037/2012). All patients were invited to participate and, after accepting, they signed the Informed Consent.

RESULTS

Among the 386 participants, males predominated, with 217 (56%) patients. The average age was 42.3 years (12–89 standard deviation — SD=18.3). In relation to the preoperative fasting time, the mean absolute fasting hours were 17.53 (6.15–35.50 hours, SD=4.54 h), and a fasting time of more than 16 hours was predominant in 241 (62%) patients. The most frequent surgical clinics were Gynecology and Obstetrics, with 109 (28.2%) performed procedures, followed by Orthopedics, with 71 (18.4%).

Most patients were classified as ASA I (194 patients — 50%), followed by ASA II (127 patients — 33%), ASA III (60 patients — 16%) and ASA IV (5 patients — 1%). The spinal anesthesia technique was the most used one (199 patients — 51.6%), followed by balanced general anesthesia (121 patients — 31.3%) and other techniques (66 patients — 17%).

There was a prevalence of thirst in the IPP in 303 (78%) patients. The mean intensity of the symptom was 6.94 (SD 2.2). Thirst was intense (7-10) for 132 (34%) participants.

Concerning the assessment of thirst complaints, 116 (38.3%) patients spontaneously complained of discomfort, and 187 (61.7%) reported their thirst after being questioned about it. The coefficient of association of Pearson's χ^2tests between the presence of thirst and the discomforts was statistically significant (Table 1).

The discomforts presented by patients and related to thirst are mentioned in Figure 1.

There was a need for orotracheal intubation in 126 (32.6%) patients. Pearson's χ^2 association tests between the presence of thirst and orotracheal intubation were statistically significant (χ^2=7.11 p=0.008 Phi coefficient (Fi)=0.136), denoting that, regardless of the total of intubates, there is an association between the procedure and the presence of thirst.

DISCUSSION

The relevance of the study lies in the evaluation and identification of the attributes of thirst in the PACU, since there are no records of such a prevalent and distressing symptom in the recovery period, revealing a hidden reality of great magnitude, which is neglected and has negative repercussions in postoperative experiences, if unidentified and treated in a safe and humanized manner.

The prevalence of postoperative thirst in this study was 78%, demonstrating the relevance and expressiveness of this

Table 1. Association between the presence of thirst and the discomfort presented by patients in the immediate postoperative period (n=386).

Discomforts	n	%*	Fi**	X²**	p***
Dry lips	87	22.5	0.282	30.76	0.000
Dry mouth	267	69.2	0.784	237.24	0.000
Thick tongue	54	14.0	0.211	17.19	0.000
Dry throat	91	23.6	0.291	32.61	0.000
Hyposalivation	105	27.2	0.320	39.51	0.000
Willingness to swallow	37	9.6	0.170	11.21	0.001
Search for water	141	36.5	0.397	60.85	0.000
Did not present any discomfort	04	1.0	0.054	1.10	0.293

*More than one discomfort can be reported; **Fi: Phi coefficient/Levels of freedom:1; ***p>0.001.

symptom in patients' experiences in the IPP. Other studies corroborate this finding, when they also show high prevalence, between 75[13], 83.7[11] and 88.6%[12] in adults, and 88.5%[18] in children.

The discomforts reported by participants were remarkable. It is known that the genesis of thirst and its discomforts in surgical patients are multifactorial. Surgical experiences and emotional reactions, such as stress, fear and anxiety, trigger biochemical and hormonal reactions to maintain the homeostasis of the organism[2,9]. These responses inhibit the production of saliva by the salivary glands, causing dryness of the oral mucosa and the oropharyngeal region[2,15,16], which surgical patients report as dry mouth.

Among the discomforts of thirst, the most reported by patients is dry mouth, which reveals how uncomfortable it can become. Thus, the perception of thirst is not only due to the conscious presence and intensity of the thirst evaluated, but also by the presence of peripheral signs such as dry mouth, dry lips, thick tongue and saliva, dry throat, bad taste in the mouth, halitosis, and the desire to drink water[2,16,17].

As to the preoperative period, it is possible to identify the presence of biochemical and hormonal reactions resulting from a confluence of factors, such as water and food restriction above that recommended by the guidelines of responsible societies, such as the American Society of Anesthesiologists (ASA)[19]. In this study, the mean absolute hours of preoperative fasting was 17.53, which represents an exponential increase in the discomfort experienced by patients, a result in accordance with a study in which patients remained, on average, 16.5 hours in preoperative fasting[20].

In a study to develop and validate a discomfort scale of perioperative thirst, seven attributes were listed as the most representative of thirst discomfort: dry mouth, dry lips, thick tongue, thick saliva, dry throat, bad taste in the mouth and desire to drink water[17]. Most of them are related to those reported in the present study, demonstrating that the discomforts expressed by patients are significant and must be listened, considered and treated with care.

As to the reports given, both the thirst and the discomforts related to it, 61.7% of participants, even experiencing intense thirst, did not verbalize it. A similar result described that 88% of patients did not spontaneously verbalize the symptom[12].

The silence that permeates surgical patients reflects the undervaluation of thirst by health professionals. Discomforts such as nausea, vomiting and pain are identified and treated promptly, while perioperative thirst, even with high prevalence, is little questioned and treated[21]. Silence is perhaps an indication of "not forgetting" a suffering[22] that contributes to distressing hospital experiences[10].

This disturbing reality was the subject of a study to explore the perception of patients as to the reasons for not spontaneously verbalizing thirst for health professionals. Patients fear to externalize their feelings about thirst because they believe this is an inherent symptom of the anesthetic-surgical act, thus accepting when professionals reinforce the maintenance of absolute fasting and the need to endure such discomfort. Patients consider it is the team's role to ask them whether they feel thirsty; if the team does not question it, they silence with fear of positioning themselves and do not

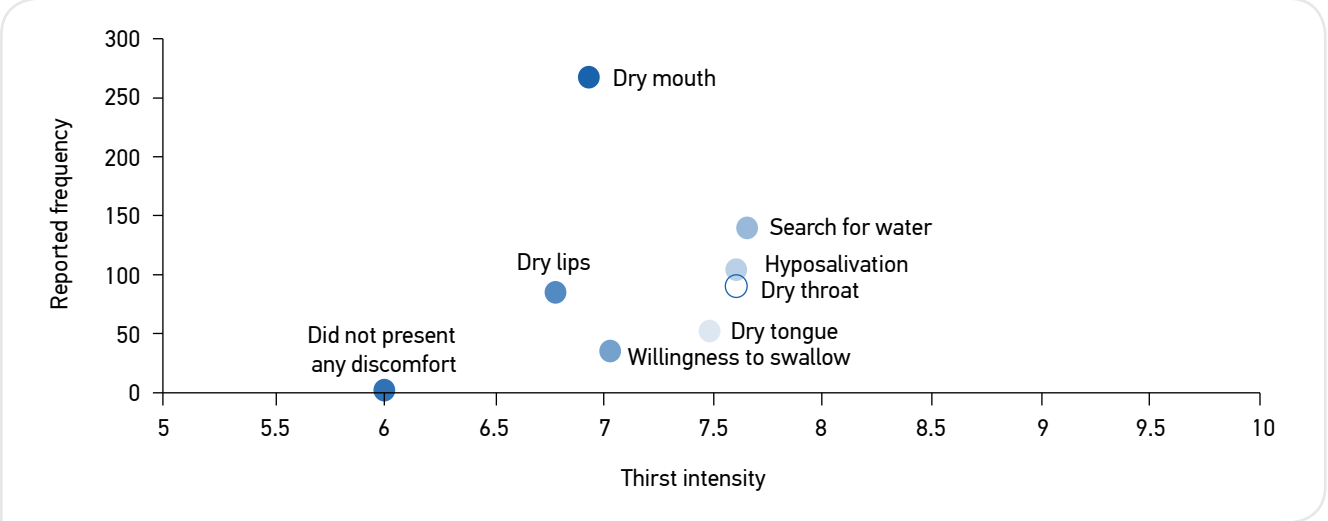

Figure 1. Frequency of discomforts mentioned as to the mean intensity of thirst in immediate postoperative patients (n=386).

expose the imposed and limiting discomfort[23]. The myth that perioperative thirst is a price to be paid to maintain life is rooted in the culture of health systems, shared by professionals and patients[3].

Such evidence corroborates the results of this study, showing the need for the surgical team to appropriate scientific knowledge to the point of changing this reality. Surgical patients belong to a group with a high risk of feeling thirst and there are, in the scientific scenario, movements that justify and describe the importance of developing strategies to identify and measure thirst, assess safety, administer relief methods and register the symptom based on literature, instrumentalizing professionals to care for surgical patients with thirst[3,17,24].

The valorization of perioperative thirst by health professionals and the intentional look for this symptom in their clinical practice, in addition to positively transform the experience of surgical patients, meet a vital human need and add humanization and quality to the surgical services.

CONCLUSION

Thirst in surgical patients in the IPP during anesthesia recovery is prevalent, intense and uncomfortable. Among the attributes related to the discomfort of the symptom, the most experienced one was dry mouth. These data corroborate other studies, pointing out that surgical patients have a high risk of developing thirst, distressing symptom that must be identified, evaluated, measured and treated intentionally, aiming to improve the quality of perioperative care. The results of this study therefore point to the need for further investigation and adoption of measures to reduce patient discomfort in anesthesia recovery.

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