

Ambulatory surgery and sleep disorders

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Abstract

The aim of this study was to assess the impact of ambulatory surgery on sleep quality in patients undergoing ambulatory surgery and to identify those patients who are at an increased risk of preoperative anxiety and sleep disorders. A total of 220 patients were admitted for ambulatory surgery between October 1996 and April 1997. They were asked to assess their usual sleep patterns on a questionnaire. Patients were divided into three groups: good, intermediate and bad sleep quality. Of the 220 patients, 150 (68.1%) had severe disturbances in the quality of sleep the night before surgery. Of the patients with usually bad sleep quality, 100% had disturbances the night before surgery. In conclusion, these data show that many patients undergoing ambulatory surgery, experience disturbances in the quality of sleep the night before surgery. Premedication could help the group of patients with previous abnormal sleep patterns. © 1998 Elsevier Science B.V. All rights reserved.

Keywords: Ambulatory surgery; Sleep disorders; Anxiety

1. Introduction

One of the primary goals in the ambulatory surgery setting is to provide safe and efficient care for all patients and increase patient satisfaction. With advances in surgical and anesthetic techniques, many patients previously considered inappropriate are operated on, on an ambulatory basis [1].

The anticipation of surgery and anesthesia can cause psychological stress, which is manifested by anxiety and impairment of postoperative psychomotor stress [2]. It is recognized that preoperative anxiety can have adverse effects on the course and outcome of surgery. Sleep deprivation and a disturbed night may increase the patient's emotional distress. The disturbed sleep pattern and loss of perception and control of the situation increase the patient's stress and lead to higher levels of anxiety and depression [3]. Prevention or reduction of anxiety can reduce the patient's level of fear and preoperative physiologic stress.

In general, a pleasant and comfortable admission area, a preoperative visit with a personal interview, a caring and knowledgeable staff, informative preoperative booklets, and audiovisual instructions are ways in which a calm, professional atmosphere can be created and communication with the individual patient established [4].

The aim of the present study was to evaluate the effects of ambulatory surgery on sleep quality the night before surgery and the to try to identify those patients who are at an increased risk of preoperative anxiety and sleep disorders in order to use anxiolytic drugs selectively.

2. Material and methods

Between October 1996 and April 1997, 220 consecutive patients who underwent ambulatory surgery in the Ambulatory Surgery Unit of the University Hospital of La Princesa were asked to fill out a questionnaire about their usual sleep patterns.

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Exclusion criteria were long-term therapy with psychotropic drugs, sedatives or antidepressant therapy. Data recorded in the questionnaire were: age, sex, diagnosis, usual sleep pattern (number of hours and sleep quality) and sleep quality the night before ambulatory surgery.

Patients were divided into three groups:

Group 1: good sleep quality. Patients who usually sleep more than 7 h without interruption.

Group 2: intermediate quality. Patients who usually sleep from 5 to 7 hours without interruption.

Group 3: bad sleep quality. Patients who usually sleep less than 5 h without interruption or more than 5 h with two or more interruptions.

3. Results

Of the 220 patients who were asked to participate, 158 were men and 62 women. The mean age of the patients was 41 years (range, 17–74 years). During the observation period, 160 inguinal hernias, 35 pilonidal cysts, 18 proctological procedures and seven miscellaneous cases were operated on.

The results of the questionnaire about usual sleep patterns were: Group 1: 112 patients (50.9%); Group 2: 41 patients (18.6%); and Group 3: 67 patients (30.4%). Of the 220 patients, 150 (68.1%) had severe disturbances in the quality of sleep the night before surgery (Table 1).

4. Discussion

The growth in ambulatory surgery undoubtedly represents an economic alternative in these times of ever-increasing costs in the health sector. Although ambulatory surgery will continue to expand in the future, it is critically important that it be of the highest quality. When faced with a major life event such as surgery, psychological stress which is manifested by anxiety and sleep disorders usually occurs [5–7]. Different scales, such as the Yale Preoperative Anxiety Scale

[8], can be used to assess preoperative anxiety in patients who undergo ambulatory surgery. Alterations in sleep patterns are recognized as one of the main causes of anxiety [4]. Abnormal sleep patterns are associated with disorientation, psychological disturbances and fatigue, which also contribute to the increased stress response.

Our data show that 66.8% of the patients who underwent ambulatory surgery had severe disturbances in the quality of sleep the night before surgery. All of the patients (group 3) who usually had bad sleep quality, had disturbances the night before surgery.

Relief of patient anxiety and sleep quality are important in reducing the cost of care because they minimize perioperative morbidity and allow discharge to home sooner. Detailed information and reassurance by the medical and nursing team about the type of surgery, the risks and benefits of the procedures can have a therapeutic effect and reduce anxiety and facilitate recovery [9–14]. Medical and nursing staff must be aware of these common psychological disturbances, which reduce the quality of ambulatory surgery. Further efforts are needed to improve the control of anxiety in the preoperative care of these patients.

Furthermore, it is important to identify those patients who are at increased risk of preoperative anxiety. Anxiolytic drugs can be used in selected patients to reduce preoperative anxiety and improve the quality of sleep. The recovery and discharge phase is of considerable concern in ambulatory surgery. Drug effects, which may be desirable preoperatively, can become unwanted postoperatively. Premedication that prolongs the time until discharge due to excessive sedation is undesirable. Hence, premedication guidelines must include consideration of the entire ambulatory experience and be adapted to fit the requirements of individual patients and surgical facilities [15]. Potential adverse effects include respiratory and cardiovascular depression. Patients may report dizziness or light headedness. Fortunately, in the doses used for premedication, these side effects are unlikely to be of clinical significance [16].

In conclusion, the present study shows that many patients undergoing ambulatory surgery presented severe disturbances in sleep. Premedication could help the group of patients with previous abnormal sleep patterns.

Table 1
Sleep disturbances in the night before surgery in patients undergoing ambulatory surgery

	Total		Sleep disturbances	
	<i>n</i>	%	<i>n</i>	%
Group 1	112	50.9	53	47.3
Group 2	41	18.6	30	73.1
Group 3	67	30.4	67	100
Total	220		150	68.1

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