Pain and Other Adverse Symptoms Identified by Follow-up Telephone Call after Ambulatory Inguinal Hernia Repair

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Abstract

Aim: This retrospective study reviewed information that was collected as part of the post-operative follow-up telephone call, to identify if pain or other adverse symptoms were acknowledged as a problem by patients following inguinal hernia surgery.

Method: Charts of 98 male patients who underwent inguinal hernia surgery between March 2006 and March 2007 were examined. A standardized check list was used to gather information regarding pain and adverse effects from patients on post-operative day [1]. The information gathered using this standardized check list was examined.

Results: Pain was the most commonly reported adverse symptom with 81% of patients indicating they experienced pain. Eighty-six patients (87.7%) used their prescribed analgesics to manage their pain. The most commonly prescribed analgesic was 325 mg acetaminophen with 30 mg codeine.

Key words: inguinal hernia, ambulatory surgery, pain, nursing

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Introduction

Surgical procedures that previously required hospitalization for one to two days are more frequently performed on an ambulatory or outpatient basis. This shift to ambulatory surgery is related to advances in anesthetic and surgical techniques, as well as fiscal restraints. In Canada, the number of patients having ambulatory surgical procedures has increased dramatically over the past two decades. The Canadian Institute of Health Information (CIHI) reports that the number of patients having these procedures has increased by 31% since 1996 [1]. However, 60% to 71% of patients who undergo ambulatory surgery experience unrelieved moderate to severe pain immediately post-operatively [2] and 34% to 55% patients continue to have pain seven days after their surgery [3, 4].

Inguinal hernia repair (IHR) is the third most common surgery performed in Canada and is usually performed as an ambulatory procedure [5]. This surgery has been identified as one of the most painful ambulatory surgery procedures, with 54% of patients experiencing moderate to severe pain in the first 72 hours [2, 6, 7, 8]. Despite experiencing continued pain, patients do not always take the prescribed analgesics. Analgesics are helpful in managing post-operative pain but may have adverse effects, including nausea, vomiting or constipation, which are often not managed post discharge. Almost half of all patients who undergo ambulatory surgery experience such adverse effects, with 45% experiencing constipation and 46% experiencing nausea and/or vomiting in the first 48 hours after surgery [9]. Patients often report receiving little or no instruction on how to manage these adverse effects, particularly after discharge from hospital [2, 4]. In addition, patients may be reluctant to ask questions about pain and they often have many misconceptions regarding postoperative pain, including concerns about addiction to analgesics, the belief that moderate to severe pain is to be expected and contributes to healing and therefore is to be tolerated following surgery [2, 3, 4,7, 9]. Patients are expected to manage this pain and adverse effects of analgesics themselves at home.

This study planned to review information that had been collected over a 12 month period as part of the post-operative follow-up telephone call after ambulatory surgery at a large University affiliated teaching hospital in Ontario, Canada. The aim of the study was to identify if pain or other adverse symptoms were acknowledged as a problem by adult patients as a result of ambulatory inguinal hernia repair.

Method

Following institutional research ethics board approval patient's charts were retrospectively reviewed. Inclusion criteria included: male patients age 18 or older that were discharged home on the same day as their inguinal hernia surgery. On the first post-operative day, patients received a telephone call from a nurse from the same day surgery unit to determine if the patient had any adverse effects or required any additional information after surgery. A standardized check list was used to gather information from patients and included questions regarding the presence of: pain, sore throat, fever, weakness, headache, nausea/vomiting, drainage, sore muscles, swelling, redness or bleeding.

The standardized check list also included questions regarding patient's activity, analgesic use, unplanned use of health care

resources (telephone calls to primary care physician, surgeon or visit to the hospital), and the clarity of discharge instructions and the need for additional information. The information gathered using this standardized checklist was examined. Data were analyzed using descriptive statistics and reported as means.

Results

The charts of 98 consecutive male patients who underwent inguinal hernia surgery between March 2006 and March 2007 were examined electronically. The mean age of patients was 55.6 years. The most common type of inguinal hernia surgery was right inguinal hernia repair with mesh (n = 27).

Table 1

Type of Inguinal Hernia Surgery	Number of Patients
right inguinal hernia repair with mesh	27
right inguinal hernia repair	15
right laparoscopic inguinal hernia repair	9
right laparoscopic inguinal hernia repair with mesh	5
left inguinal hernia repair	12
left inguinal hernia repair with mesh	13
left laparoscopic inguinal hernia repair	5
left laparoscopic inguinal hernia repair with mesh	8
bilateral hernia repair	4

When asked about specific adverse outcomes during the post-operative telephone call, patients most frequently reported the presence of pain, bleeding from the surgical site (that resolved within 24 hours), difficulty voiding (that resolved within 24 hours), sore throat, and nausea and vomiting. Pain was the most commonly reported adverse symptom after inguinal hernia surgery, with 79 patients (81%) indicating they experienced pain. Eighty-six patients (88%) used their prescribed analgesics to manage their pain. The most commonly prescribed analgesic was 325 mg acetaminophen with 30 mg codeine (Tylenol #3). Two patients called their surgeon for additional information/advice post-operatively. None of the patients presented to the hospital in the first 24 hours following surgery due to adverse symptoms. All patients were satisfied with their discharge instructions and did not ask for additional information during the telephone call.

Table 2

Reported Adverse Symptom	# Patients Reporting Symptom (%)
Pain	79 (81)
Bleeding	18 (18.4)
Difficulty voiding	9 (9)
Sore throat	7 (7.1)
Nausea and vomiting	6 (5.8)
Drainage	1 (1)
Fever	1 (1)

Conclusion

This chart review found that when nurses asked about the presence of specific outcomes during post-operative telephone call, patients reported several adverse events. The most frequently reported adverse event was pain, followed by bleeding from the surgical site (that resolved within 24 hours), difficulty voiding (that resolved within 24 hours), sore throat, and nausea and vomiting. The majority of patients used the prescribed analgesics to manage their post-operative pain. Implications for nursing practice includes: providing pre-operative education regarding the potential presence of these symptoms post-operatively and symptom management techniques, post-operatively exploring how patients are managing adverse symptoms and providing patients with alternative management techniques if necessary.

Future research directions include determining the presence and the severity of adverse symptoms experienced by patients, as well as preventing or pre-emptively managing adverse symptoms whenever possible. The high incidence of postoperative pain for patients having elective ambulatory inguinal hernia repair suggests that the standard therapy with acetaminophen with codeine should be reconsidered.

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