

Introduction

Laparoscopic cholecystectomy (LC) was first reported in Germany (1985) and France (1987) more than 2 decades ago. Although not immediately universally adopted, it has revolutionized the general surgery. Management of biliary tract disease has evolved from the extensive procedure Karl Langenbuch first performed in 1882 with its significant convalescence to a relatively safe and tolerable outpatient procedure today, offering early return to full activity

Postoperative nausea and vomiting (PONV) is a common unpleasant experience. Although improvement of various anesthetics and the identification of patient-anesthesia and surgery-related risk factors for PONV have helped to develop many preventive strategies in recent years, the overall incidence of PONV in the adult population still remains at 20-30%.

The incidence of nausea and vomiting is affected by the type of surgery; for example it is 30% - 65% after cesarean section, 53% - 75% after laparoscopic cholecystectomy, 62% - 80% after middle ear surgery and 40% -70% after tonsillectomy and adenoidectomy

A variety of antiemetic drugs have been used for the prevention of PONV during 0-24 hours after anesthesia with varying degrees of success including traditional antiemetics (e.g. droperidol, metoclopramide, scopalamine, dixyradine, dimenhydrinate, and aprepitant), non-traditional antiemetics (e.g. dexamethasone, propofol, clonidine, midazolam, and lidocaine), and antiserotonins (e.g., ondansetron, granisetron, ramosetron, tropisetron, dolasetron, and ramosetron).

Non-pharmacological techniques include acustimulation, acupressure, and acupuncture. However, the traditional and anti serotoninantiemetics may produce undesirable adverse effects, such as drowsiness, restlessness, dystonic reactions, and extrapyramidal signs.

Aim of the work

This study was aimed to compare the effectiveness of antiemetic effect of palonosetron versus ondansetron in prevention of post operative nausea and vomiting in patients undergoing laparoscopic cholecystectomy.

Patients and Methods

A prospective, comparative randomized single blind study was carried out on 100 adult patients, of both sexes, American Society of Anesthesiologists (ASA) score I and II, admitted to Alexandria Main University Hospital, for elective surgeries involving laparoscopic cholecystectomy. The sample size was statistically approved by the biostatistics department of Medical Research Institute, Alexandria University. Data were fed to the computer and analysed using IBM IPSS soft ware.

Results

Table 1: Comparison between the two studied groups regarding MABP at different period of follow up

MABP	On admission	30 min I.O.	60 min. I.O	6 hr P.O.	12 hr P.O.	18 hr P.O.	24 hr P.O.
Palonosetron group							
Range	65-95	65-98	66-97	66-99	71-102	70-104	71-97
Mean	80.36	79.58	79.9	80.48	85.82	86.28	86.36
SD	7.81	9.46	9.23	9.00	8.86	8.74	7.37
Ondansetron group							
Range	69-102	69-106	68-104	70-105	68-105	72-103	73-109
Mean	85.76	86.08	87.72	87.42	86.9	87.14	87.44
SD	8.02	10.44	9.77	9.72	8.92	8.07	8.86
P value	0.063	0.001*	0.001*	0.01*	0.272	0.305	0.255

Table 2: Comparison between the two studied groups regarding nausea and vomiting score

Nausea and vomiting	Palonosetron group		Ondansetron group		P value
	No	%	No	%	
No PONV	15	30.0	10	20.0	0.016*
Mild nausea with no vomiting,	17	34.0	16	32.0	
Severe nausea with one episode of vomiting	17	34.0	13	26.0	
Vomiting with more than 2 episodes).	1	2.0	11	22.0	

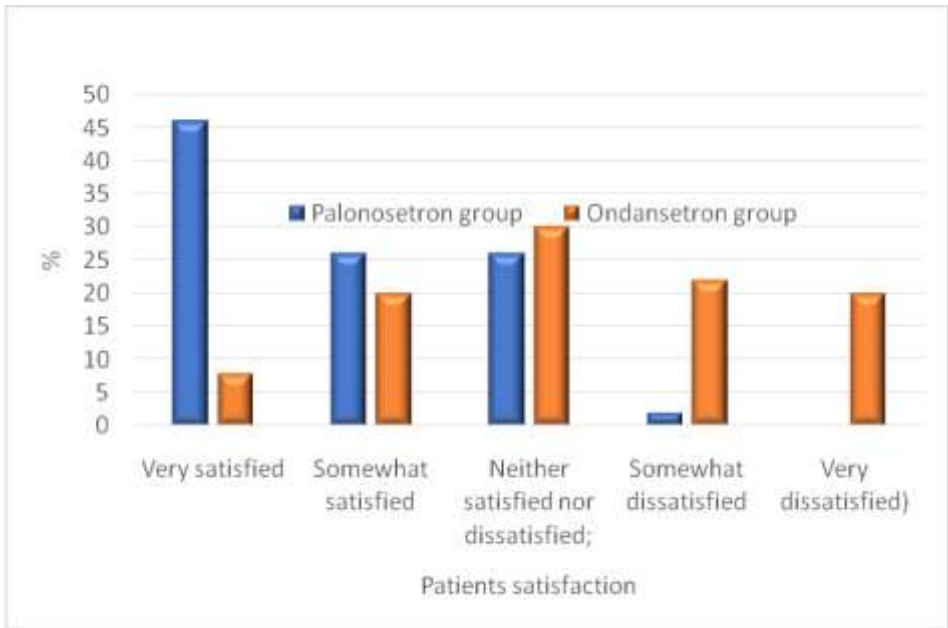


Figure: Comparison between the two studied groups regarding patients satisfaction

Conclusion

The study concluded that:

Both Palonosetron and ondansetron are effective drugs in prevention of nausea and vomiting after laparoscopic cholecystectomy. Palonsetron was more efficacious than ondansetron in controlling PONV in a post-surgical patients undergoing laparoscopic cholecystectomy.