

Original Article

EFFECT OF TELEPHONIC REMINDER ON PATIENT'S COMPLIANCE FOR FOLLOW UP AFTER LAPAROSCOPIC CHOLECYSTECTOMY

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Objective: To assess whether phone reminders would improve patients compliance in terms of timely follow up, adherence to medical and dietary advice in patients after laparoscopic cholecystectomy.

Methods: This was a cross sectional study which was carried out in Services Hospital Lahore. A total of 100 patients who underwent laparoscopic cholecystectomy were selected and randomly allocated into two groups. Patients in group A were reminded about follow up through a telephone call and patients in group B were not contacted through telephone and turn out the patients was observed in the OPD. Chi square test was applied to compare the groups. P value less than 0.05 was considered as statistically significant. Stratification was done for age, gender and education level.

Results: Mean age of patients was 42.8 years. 64% of patients were females. Out of 50 patients, 30 (60%) adhered to the advice after in group A (after telephonic remainder) while out of 50 patients, 16 (32%) patients remained compliant to the advice in group B (no telephonic remainder). In addition younger patient were more compliant.

Conclusions: It was concluded that telephonic reminder had a statistically significant impact on the adherence of advice of doctor and young patients had a better response to the follow and to medical advice.

Keywords: laparoscopic cholecystectomy, telephonic reminder, follow up.

Introduction

It has been accepted that the ability of patients to follow the treatment plan is an essential component in increasing the efficacy of any treatment.¹ Failure on the part of the patients to follow the advice of the doctors limits the effect of the treatment. A number of studies have been undertaken in previous years to understand and enhance the adherence of the patients.^{2,3} Lack of adherence has been documented to result in increased morbidity and mortality.^{4,5}

Almost 30-50% patients have been reported to fail to adhere to the medical recommendations.⁶⁻⁸ This may result in adverse outcome for health of the patient, lead to increased burden on healthcare system and increased expenses.⁹ Adherence can be understood to the extent to which behaviors such as lifestyle modifications or diets concur with medical advice. There are often barriers to adherence that may include concerns about efficacy, fear of side effects, inconvenience, a poor doctor-patient relationship, and lack of social support, patient motivation, or incorrect education regarding proper use.^{10,11} The relationship between these factors is complex and confusing.¹²⁻¹⁴ The extent of relationship between adherence and treatment outcomes has not been yet fully

explained. However, it is believed that non-adherence will lead to adverse outcome for all involved. Various studies have been done to evaluate the relationship between patient behavior and factors influencing adherence.¹²⁻¹⁴

The rationale of this study was to examine the impact of telephonic reminder on patients compliance in terms of timely follow up, adherence to medical and dietary advice after laparoscopic cholecystectomy.

Methods

This was a descriptive cross sectional study which was carried out at Surgical Unit 2, Services Hospital, Lahore after ethical approval from the hospital ethical committee. A total of 100 patients who were underwent laparoscopic cholecystectomy were recruited in the study. The patients were divided randomly into two groups A and B. At the time of discharge, both groups were provided with written instructions regarding medication and diet and were called for follow-up after one week (follow up at 1 week gave us good opportunity to examine the wound for infection and also most medications given after laparoscopic cholecystectomy had time period of one week). In addition, the patients of group A were also alerted with a telephonic reminder 48 hours before their planned OPD follow-up. Patients were

called once, reminded about their appointment, and counselled about their medication and diet. However, patients of group B were not reminded telephonically. Adherence/compliance (outcome) was measured by calculating the number of patients who presented to the OPD on due date, with documentation of their operation and medication and compliance to the medical and dietary advice given at discharge. Patients lacking in any of these component were termed as non-adherent. Chi square test was applied to compare the groups. P value less than 0.05 was considered as statistically significant. Stratification was done for age, gender and education level.

Results

A total of 100 patients were included in the study with 50 patients in each group. Mean age of patients was 42.8 years. In the study out of 100 patients, 64 (64%) were females. 30 out of 50 patients in group A adhered to the advice while 16 out of 50 patients in group B stick to the advice. This result was statistically significant. After stratification, age had positive correlation with adherence while education and gender had no statistically significant influence on adherence.

Table-1: Comparison between group A and group B for adherence to advice

Group	Adhered advice	Non-adherence	P-value
A- Telephonic reminder	30	20	0.047
B- No reminder	16	34	

Table-2: Stratification for gender, education and age.

	Adhered to advice	Non-adherence	P-value
Effect of Gender			
Male	26	38	0.309
Female	20	16	
Effect of education			
Below Matric level	30	139	0.352
Matric level and above	12	22	
Effect of Age (years)			
18-30	36	04	0.000
30 and above	12	01	

Discussion

Laparoscopic cholecystectomy is a commonly performed operation for gall bladder stones. Gall bladder stone is a disease which is strongly influenced by diet and sedentary lifestyle. Post-operative patients are often advised to have fat reduced diets. In the present study, younger patients were more compliant as compared to older patients. In patients with age below 30 years, 36 patients were adherent to follow up and advice

while 8 patients were non-adherent to advice. In age group above 30 years of age, 12 patients were adherent to advice and follow up whereas 44 patients were non-compliant. This comparison was statistically significant. These results were in contrast with the study carried out by Becker MH et al.¹⁵ which showed that middle age patients had better compliance. Furthermore, other studies revealed that patients were more compliant in older ages especially above 60 years.^{16,17}

In this study male patients seemed to be more adherent to follow up and advice as compared to females but the comparison was not statistically significant. Chen SL et al.¹⁸ in their study showed that male patients were more adherent to therapy as compared to female patients. However, other researchers illustrated that female patients were more compliant.^{17, 19} In the current study patients with education level below matriculation had greater compliant rate than patient with education above matriculation but the results were not statistically significant. In patients with education below matric 36 patients were compliant while 8 patients were non-compliant. In patients above matriculation 12 patients were adherent while 24 patients were non-adherent. These results were in concordance with study conducted by HLMBrus et al.²⁰ In contrary, another study showed that higher education level had improved compliance rate.²¹ In the current study out of the 25 patients in Group A 60%(30) patients were adherent to follow up and medical advice where as in group B only 32%(16) patients remained adherence to follow up and to advice. This comparison was statistically significant. Similar results were also reported by other researchers.^{14, 22, 23} The sample size was one of the major limitation of this study. A larger study is required to confirm the findings detected by our initial study and further elaborate the factors responsible. Furthermore, a proper system should be introduced as timely follow-up of the patients. In addition it would follow that proper patient education can lead to decreased disease burden. However, the manpower and financial support required to set up such system will need a careful thought.

Conclusion

It was concluded that telephonic reminders had a significant impact on the adherence of the patients to the advice and young patients were more adherent to the advice of doctors.

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