CONSENTING PRACTICE FOR POST-OPERATIVE DIARRHEA IN PATIENTS UNDERGOING LAPAROSCOPIC CHOLECYSTECTOMY NEEDS ATTENTION

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ABSTRACT

Objective: To determine consenting practice for post-cholecystectomy diarrhea at a single UK tertiary care center and how it could be improved to ensure patients are fully informed.

Material and Methods: Data on discussed complications was obtained from consent forms between February 2015 to August 2015 in a single unit high-volume UK teaching hospital (Royal Stoke University Hospital, Stoke-on-Trent, UK). All adults (aged 18 or more) undergoing either emergency or elective laparoscopic cholecystectomy as a primary procedure for gallstones, acute cholecystitis and biliary colic, were included. The re-audit following educational intervention was completed between June 2016 and November 2016. Data was analysed according to grade of consenting surgeon.

Results: During the first audit involving 74 patients, only 22 (29.7%) were consented for risk of post-operative diarrhoea, all by consultants. Following re-education and subsequent re-audit, 45 out of 75 patients (60%) were consented for post-operative diarrhoea, representing an increase.

Conclusion: Effective education can raise awareness about post-operative diarrhoea following cholecystectomy. This will enable effective awareness and manage patient expectations following surgery.

Key words: Post operative, diarrhoea, Laparoscopic, Cholecystectomy.

INTRODUCTION

Laparoscopic cholecystectomy is an established technique for treating symptomatic gallstones or complications arising from gallstones. However, this technique is associated with several complications including post-operative diarrhea. Unfortunately, there is inconsistent practice in consenting for this common complication. Gallstones affect 15% of the UK population with 20% of these patients developing symptomatic disease1-3. Risk factors for gallstone disease are classically female gender, obesity, increasing age as well as smoking and positive family history ⁴. Gallstones can lead to biliary colic or be complicated by acute cholecystitis, acute pancreatitis or obstructive jaundice.

Laparoscopic cholecystectomy is considered as the Gold standard procedure for treating symptomatic cholecystolithiasis and is the commonest laparoscopic procedure performed worldwide⁵,⁶. Frequency of complications vary from 0.5 to 6%⁷,⁸. Laparoscopic Cholecystectomy is associated with fewer complication rates and has got an early post operative recovery⁹,¹⁰. Complications include infection (1%), haemorrhage (1%), intra-abdominal injury (0.3%), retained stones (0.1%). In addition, up to 30% of patients suffer post-cholecystectomy syndrome which varyingly includes variation dyspepsia, nausea, vomiting, flatulence, bloating, diarrhoea as well as pain in the upper abdomen¹¹,¹². Furthermore, the rate of post-operative diarrhoea has varyingly been reported between 9.1% to 33%¹³-¹⁶.
An essential part of good surgical practice is obtaining informed consent, which includes detailed explanation of risk of both serious as well as frequent complications. This is both an ethical and legal responsibility upon the consenting surgeon in their preoperative discussion with the patient and the outcome from this is documented on consent forms that both the patient and operating surgeon sign. Moreover, failure to obtain informed consent can have legal and financial implications for the healthcare trust. Consenting practice for diarrhoea post-cholecystectomy however varies between units as well as between surgeons within a single unit. The aim of this closed loop audit was to determine consenting practice for diarrhoea post-cholecystectomy and if through targeted interventions this could be improved leading to greater consistency in consenting practice.

**MATERIAL AND METHODS**

The initial audit was a prospective study of patients who underwent laparoscopic cholecystectomy between February 2015 to August 2015 in a single unit high-volume UK teaching hospital (Royal Stoke University Hospital, UK). All adults (aged 18 or more) undergoing either emergency or elective laparoscopic cholecystectomy as a primary procedure for gallstones, acute cholecystitis and biliary colic were included. Patients undergoing open cholecystectomy or cholecystectomy as part of another procedure were excluded.

The re-audit following intervention was completed between June 2016 and November 2016. This audit was completed after implementing the primary recommendations from the first audit of increased education and aide memoires. The study parameters remained the same. Data was collected from consent forms from individual operations and analysed according to grade of consenting surgeon: Senior House Officer (Core trainee, CT1-2), Speciality Registrar (ST3-8), or Consultant. As this was an audit study against published standards, no formal ethical approval was required for use of anonymized patient data.

**RESULTS**

**First audit**

The first audit identified 150 patients between February 2015 and August 2015 who underwent laparoscopic cholecystectomy. Only 74 patients had accessible consent forms and these were subsequently analysed. In total, 8 different consultants completed 58 forms and various speciality registrars or senior house officers completed 14 forms. Of the 74 patients, only 22 (29.7%) were consented for risk of post-operative diarrhoea (Figure 1). 20 of these 22 patients were consented by a single consultant with the 2 others being consented by 2 different consultants. None of the senior house officers or registrars consented for potential post-operative diarrhoea. The results of first audit is shown in Figure 1.

The recommendations arising from the first audit were an educational talk to junior doctor grades responsible for consenting along with aide memoires and use of stickers for common procedures. This was followed by a re-audit in the following year.

**Second Audit**

During the re-audit, between June 2016 and November 2016, data from consent forms for 75 patients undergoing laparoscopic cholecystectomy was collected. All 75 consent forms were filled by 5 different consultants and no forms were filled by specialty registrars or senior house officers. 45 out of 75 patients (60%) were consented for post-operative diarrhoea distributed amongst the 5 five consultants as shown in Figure 2. This was an increase compared to the first audit cycle from 30% to 60%.

**DISCUSSION**

Fig 1: First audit – only 22 of 74 patients were consented for post-operative diarrhoea. of these, 20 patients were consented by a consultant

Fig 2: Second Audit – 45 of 75 patients were consented for post-operative diarrhoea following laparoscopic cholecystectomy. All of these patients were consented by a consultant.
Our completed audit cycle of consenting practice for laparoscopic cholecystectomy shows that post-operative diarrhoea is often not consented for. This is particularly true of more junior doctor grades when consenting. Furthermore, with educational input and appropriate guidance consenting practice can be improved to ensure that a greater proportion of patients are aware of this potential complication. This will enable surgeons to manage patient expectations as well as fulfil their ethical and legal obligations regarding consent and avoid potential litigation.

The importance of consenting for diarrhoea post laparoscopic cholecystectomy is highlighted by several studies that have shown post-operative diarrhoea. A systematic review of 25 observational studies reported the prevalence of post-cholecystectomy diarrhoea as 9.1% (302 of 3306 patients) (9). Although the aetiology and predisposing factors of post-cholecystectomy diarrhoea are not clearly understood, the authors speculated that in part it may be related to bile-acid malabsorption. Nonetheless the potential to cause socially disabling symptoms is significant to warrant discussion with patients pre-operatively.

**Limitations**

The findings are from a single centre UK tertiary centre. This centre has a policy of operating on acutely inflamed as well as non-inflamed gallbladders as per National Institute of Health and Care Excellence (NICE) guidelines. We recognise that the repeat audit did not reveal any data from junior doctor grades. There is no restriction on more junior grades than consultant consenting providing they are competent to do so. As such the lack of data from this group may be due to the time period of study and is something that could be remedied in subsequent audit cycles.

**Conclusion**

Effective education can raise awareness about post-operative diarrhoea following cholecystectomy. This will enable effective awareness and manage patient expectations following surgery.

**References**


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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

Tahir AA: Concept, Design, Drafting, Manuscript.
Mahmood F: Data Acquisition, Drafting Manuscript, Bibliography.
Waheed R: Bibliography, proof reading.
Khan MN: Drafting and proof reading.
Hussain A: Proof Reading, Design, concept.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.