

ABSTRACT

This is a comparative study done to find the incidence of Bile duct injuries during laparoscopic cholecystectomy with and without biliary mapping using methylene blue.

Eligibility criteria

A.Inclusion criteria:

1. Patients present with abdominal pain who after evaluation by USG abdomen,LFT,OGD diagnosed to have cholelithiasis in GRH Madurai.
2. Patients good candidates for laparoscopic cholecystectomy
3. Patients consented for inclusion in the study according to designated proforma

B.Exclusion criteria:

1. Patient with features of acute cholecystitis,
2. Patient with cardiac,respiratory ailments unfit for laparoscopic surgery
3. Pregnant ladies,patients age less than 12 years.
- 4.Patient not consented for inclusion in the study.

Methodology:

The patients presenting with abdominal pain who after evaluation diagnosed to have cholelithiasis and fit for laparoscopic cholecystectomy in GRH Madurai will be recruited in this study.

Following consent, a questionnaire will be filled to record the patient's demographic data, duration of disease,dietary style ,co-morbid illness,drug history and previous history

Study Place: Department of General Surgery, Madurai Medical College, Madurai.

Study design : This is a prospective study comprising of patients of abdominal pain who after evaluation proved to be suffering from cholelithiasis

study Duration : May 2016 to April 2019

Procedure: The patients were seen in surgical outdoor in emergency and routine hours and were diagnosed on the basis of history, clinical examination and investigations like usg abdomen,LFT,OGD,CT abdomen(if necessary)

Methylene Blue Dye Injection to prevent Bile Duct Injuries

Introduction :

Injection of methylene blue is not new to practice of surgery, frequently used to trace sinus or fistula during various procedures, sentinel lymph node biopsy and in chromointubation (Tube patency test). In this study Methylene blue is used to delineate extrahepatic biliary tract including Gall bladder during laparoscopic cholecystectomy by coloring them blue.

It's a novel approach with largest series of 46 cases performed in Istanbul Training Hospital, Istanbul. Basic purpose of this technique is to facilitate young surgeons / residents in beginning of their learning curve to execute a SAFE cholecystectomy and to help dissections in 'Difficult cholecystectomies.

Method :

Gall bladder fundus was punctured by Verress needle and all the bile was aspirated. The same amount of 50% methylene blue (saline diluted) was injected into the gall bladder for coloration of biliary tree ie. gall bladder, cystic duct, bile duct and some times duodenum. The puncture site was held through out the operation with toothed grasper through the lateral subcostal port. Gall bladder was removed by subxiphoid port. Methylene blue is aspirated to prevent leak while removal of Gall bladder.

out of fifty patients taken for study,they are divided in to two groups based on with methylene blue biliary mapping and without biliary mapping consisting of 25 members each.the results were analysed based on age,sex,mean operative time,bileduct injuries,bleeding complications,lap to

open conversion.it is concluded from this study that biliary mapping using methylene blue during laparoscopic cholecystectomy stains the extra hepatic biliary apparatus and makes them conspicuous.this enables the training surgeons in their early phase of learning curve understands the normal anatomy and variations of biliary tree and their associated blood vessels.so the training surgeons can proceed with meticulous dissection of calot's triangle,apply clips over cystic duct and artery without causing damage and in correct time without prolongation of operative time. Chance of conversion from laparoscopic to open procedure is also rare in biliary mapping using methylene blue.

Thus the incidence of Common bile duct injuries could be decreased by using biliary mapping with methylene blue during laparoscopic cholecystectomy.