

DISCUSSION

Electrocautery is used by more than 85% of surgeons in LC⁵. Use of energy sources in LC is universal. Electrocautery used as an aid in safe performance of LC has been implicated in many injuries especially hollow viscous injuries⁴. Gall bladder has surgical safe avascular planes to enable dissection without any electrocautery⁶. Yet energy sources are used & considered a necessary evil⁷. Chances of error are further increased by mechanical interface⁸. Injuries caused by EC are not only unique to LC era but more dangerous and potentially fatal⁹. Such injuries have been often hidden by the surgeon and not accepted¹ because they are the most common cause of litigation following LC¹⁰. It has been known¹¹ that EC can damage the hepatic veins and cause bleeding. Rise in temperature by EC¹² is known to damage the integrity of viscera. EC injuries not only create biliary cripples¹³ but can be fatal¹⁴. Our study has shown absence of any such complications in the study group (non EC). Also the only conversion in this study got included in both groups as she was initially in non-EC group but the surgeons could not proceed with dissection and felt the need to convert. EC was used to see if it could facilitate dissection and avoid conversion. But surgeons even with EC decided to convert. This showed that EC didn't offer additional advantage in dissection. This corroborates the evidence from literature¹⁵ which clearly favors sharp dissection and not the dissection using EC. EC in this study was associated with not only significant morbidity but mortality as well. LC has become a gold standard and day care procedure. This study showed that EC is not an aid in this direction but an impediment.

CONCLUSION

Energy sources are a source of avoidable complications in LC hence need to be done away with in a routine cholecystectomy.

ACKNOWLEDGEMENT

I am grateful to Miss Pooja Pant for preparation of this manuscript.

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Literature Review

Effect of aggressive risk factor modification on cardiac events and myocardial ischaemia in patients with chronic kidney disease

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Heart 2006,92: 1402-1408

Patients with CKD were randomly assigned to either an aggressive risk factor modification strategy (targeted treatment of hypertension, dyslipidaemia, homocysteine, haemoglobin and phosphate) or standard care. An intention to treat analysis was performed on 152 patients who had baseline dobutamine stress echocardiography (DSE), including 107 who had follow-up DSE. Biochemical parameters, cardiac risk factors and investigations (ECG, two-dimensional echocardiography) were recorded at baseline. New ischaemia was classed as new or worsening stress wall motion abnormality between follow-up and baseline DSE. Patients were followed up for the development of new ischaemia or cardiac death, acute coronary syndrome and non-fatal myocardial infarction over 1.8 years. The development of new ischaemia was common but not different between the standard and aggressively treated groups (15 (21%) v 18 (23%), $p = 0.8$). Independent predictors of new ischaemia were older age, abnormal ECG, higher systolic blood pressure and lower serum high density lipoprotein cholesterol, but not treatment arm. The standard and aggressively treated groups did not differ in cardiac event rate (10% v 13%, $p = 0.6$ or all cause mortality (10% v 19% $p = 0.2$). In patients with an abnormal baseline DSE (non-diagnostic, scar or ischaemia), the event rate was similar (22% v 20%, $p = 0.9$) Aggressive risk factor modification in CKD does not limit the development of new ischaemia or reduce cardiac events in patients with an abnormal DSE.

surgical alternative for patient who are super obese as also for those who require less weight loss (10).

OPEN BARIATRIC SURGERY

Patients of morbid obesity have been effectively treated by bariatric surgery and life style management in the west for the past 50 years. Open bariatric surgery on these patients with a high surgical risk is associated with significant perioperative morbidity and a prolonged convalescence (11, 12). Technical difficulties include an incision through an anterior abdominal wall, of increased thickness working in a depth with difficulty in accessing areas like the esophageal hiatus, bulky and heavy intraabdominal contents, abdominal wall closure, delayed ambulation due to surgical incision with increased risk of DVT and pulmonary embolism. All complications related to an open incision such as wound dehiscence, incisional hernias, hypertrophic scars etc. An event such as post-operative bleeding or bowel leak requiring re-exploration has a very high incidence of morbidity and mortality.

Introduction of minimal access surgery has significantly shortened convalescence and perioperative morbidity. The laparoscope is able to access and provide excellent vision of nearly the entire abdominal cavity. Appropriate placement of trocars makes handling of entire GI tract comfortable. The puncture wounds made by the trocars do not require a layered closure. The post operative pain is significantly decreased and majority of patients are ambulatory in the post-operative period. This results in a rapid recovery of the patient.

Any surgeon performing bariatric procedures must be well versed with diagnosis and management of complications of these procedures and should possess appropriate and adequate surgical expertise and technical skill to perform the procedure by laparoscopic and open approach.

SUMMARY

Bariatric surgery in India is in the stage of infancy. Patients of morbid obesity require to be managed by a multidisciplinary team comprising the surgeon at the helm with help from, physician, nutritionists, physiotherapists, psychologists and counselors. Protocol based management provides for safe surgery and yields the best results.

Recent studies have shown that the diseases associated with morbid obesity appear at much lower BMI values in the Asian population as compared to Caucasian and, hence, the BMI criteria for classifying obesity have been revised for the Asian population. (Table 1)

Bariatric surgery is slowly growing popular in India. The technology of minimal access surgery has made this surgical option for treating obesity more acceptable.

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Literature Review

Characteristics of Gestational Diabetic Mothers and their Babies in an Indian Diabetes Clinic

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Japi. VOL.53. October 2005

Antenatal information was obtained from hospital records gestational diabetes mellitus GDM was diagnosed by 75g OGTT in clinically high risk women. Anthropometric measurements of mother and the babies were recorded within 24 hours of delivery and a maternal blood sample collected for haematological and biochemical measurements. Between the period Jan 1998 to Dec. 2003, 265 women with gestational diabetes were treated in our unit; 49% had first-degree relatives with diabetes. Compared to non-diabetic mothers (n=215) GDM mother were older (29.0 vs. 26.0 years, p<0.001), more obese (body mass index – BMI 26.0 vs. 22.0 kg/m², p<0.001), centrally obese (waist hip ratio-WHR 0.89 vs 0.86, p<0.001), adipose (sum of 4 skinfolds 98.4 vs. 61.4 mm, p<0.001) and higher blood pressure (Hg, p<0.001). GDM mothers had higher concentrations of plasma triglycerides (195.0 vs. 153.0 mg/dl, p,0.01); blood haemoglobin (11.7 vs 10.9 g/dl, p<0.001) and higher platelet count but lower concentration of HDL cholesterol and albumin. Sixty percent GDM mothers and 34% of non-diabetic mothers were delivered by caesarean-section, 23% of GDM mothers delivered pre term (<37wk). Despite the smaller gestation, babies of GDM mothers were heavier (BW 2950.0 vs. 2824.0g, p<0.0001, adjusted for gender), longer (48.9 vs. 48.0 cm, p<0.01) and more adipose (sum of 2 skinfolds 10.5 vs. 8.5mm). Only 5% of babies born to GDM mothers weighed >4000g but 30% were >90th centile of birth weight of babies born to non-diabetic mothers. Babies of GDM mothers suffered higher neonatal morbidity. GDM mothers in urban India are more obese than non-diabetic mothers, frequently have a family history of diabetes and show metabolic features of insulin resistance syndrome, suggesting high cardiovascular risk. Neonates of GDM mothers are heavier, longer and more adipose than those born to non-diabetic mothers, and suffer higher neonatal morbidity.