

Table 1

Number of patients recruited	Time period	Age range in years (mean)	BMI range in kg/m ² (mean)	Diagnosis-Biliary Colic (%)	Conversion to open (%)	Discharge on same day (%)	Re-admission (%)
First 34 patients	July 2000 - August 2001	20-72 (37)	20-34 (27)	29 patients (85%)	2 patients (6%)	25 patients (74%)	0
Last 68 patients	September 2001 - April 2003	21-76 (41)	18-44 (34)	37 patients (54%)	0	62 patients (91%)	3 patients (4%)

Key words: colorectal surgery, laparoscopic.

Reference: Greene F L. Laparoscopic management of colorectal cancer. C A Cancer J Clin 1999; 49, 221-218.

0-058

Early experience in laparoscopic bariatric surgery

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Introduction: Morbid obesity is a disease of excess energy stores associated with severe physical problems and increased morbidity and mortality.

Aim: To assess the results of laparoscopic gastric banding and laparoscopic gastric bypass.

Patients and Methods: The patients who fulfilled the criteria for bariatric surgery were those with a BMI of 40 or a BMI of 35 and one obesity-related co-morbidity. A total of 43 patients underwent a total of 44 procedures between November 1999 and June 2003.

Two operations were performed: laparoscopic adjustable gastric banding and laparoscopic roux-en-Y gastric bypass. It was left up to the patients to decide which operation they wanted. All patients were assessed pre-operatively by a dietician and an endocrinologist. Only patients with a psychiatric history or having psychological problems were seen by a psychiatrist.

Results: A total of 43 patients were included in this study. All the patients were over 18 years of age and were ASA grade I or II. There were 7 males and 36 females. 25 patients underwent gastric banding and 19 underwent gastric bypass. One female patient had an attempted gastric banding procedure following a bypass at a later date. There was no mortality following the operations. There was no statistical difference between the two groups for age and BMI. The percentage excess weight loss was higher for LRYGB as compared with LGB.

Conclusion: Laparoscopic bariatric surgery can be performed with acceptable morbidity and mortality and satisfactory rate of loss of excess weight. LRYGB patients had a higher percentage of loss of extra weight.

0-059

Incidental gallbladder carcinoma in the Maltese Archipelago

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Background: Incidental gallbladder carcinoma is defined as carcinoma of the gallbladder first diagnosed at histological examination of the resected gallbladder. Gallbladder carcinoma is the most common cancer of the biliary tract worldwide. However, it is a rare neoplasm with a poor prognosis. Incidental gallbladder carcinoma is found in 0.35% to 2% of patients undergoing cholecystectomy.

Objectives: To establish the incidence of unsuspected gallbladder carcinoma in the Maltese islands and to identify any common characteristics amongst these patients.

Patients and methods: We present a series of 2577 cholecystectomies carried out at St.Luke's Hospital and Gozo General Hospital between May 1993 and May 2003. The patients were identified from the pathology

database and from the national cancer registry.

Results: In this series, there were 27 histological diagnosis of incidental gallbladder carcinoma. The M:F was 1:1.7 and the mean age at diagnosis was 71.0 years (range 54 - 89 years). Most patients had co-existing gallstones. Eighteen patients from this series died. Their mean survival time after diagnosis was 9.1 months (range 0 - 48 months).

Conclusions: The incidence of unsuspected gallbladder carcinoma in our series is 1.0%. A high index of suspicion is required in the preoperative management of elderly patients with gallstones, deranged liver-function tests and an irregular walled gallbladder on ultrasound.

Key words: Gallbladder carcinoma - incidental - cholecystectomy

0-060

Outcome after upper limb revascularisation

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Objective: A single centre's 20-year experience of upper limb revascularisation.

Method: All patients undergoing operative or radiological upper limb revascularisation between June 1983 and July 2003 were collected from a database and their results reviewed.

Results: 172 patients underwent 184 upper limb revascularisation procedures. Sixty-one patients had a thrombo-embolic event (35%), 53 patients presented with traumatic vascular injury (31%) and 29 patients presented with chronic upper limb ischaemia (17%). Fifteen patients presented with symptoms of subclavian steal syndrome (9%), 8 patients presented with thoracic outlet compression (5%) and 6 patients had iatrogenic injuries (3%).

Fifty-eight thrombo-embolotomies were carried out, 35 under loco-regional anaesthesia (61%). Ten patients (16.4%) died following embolotomy, all from cardiopulmonary causes.

Fifteen reversed saphenous vein bypass grafts were performed for traumatic damage, 3 for proximal (proximal to teres major) and 12 for distal arterial lacerations. Twenty-seven patients underwent primary arterial repair and 5 required an autologous vein patch. One patient subsequently had an arm amputation and two patients (4%) died.

Twelve patients presenting with arm ischaemia underwent subclavian angioplasty, 12 patients had a proximal bypass and in 5 patients stenoses were stented. Mortality in this group was 6.9% (2/29). Fifteen patients had radiological evidence of subclavian steal syndrome for which 9 prosthetic bypasses, 5 angioplasties and one stent were performed.

Conclusion: The mortality for upper limb revascularisation was 8.8%. The mortality was highest after embolotomy and was similar to the mortality associated with lower limb embolotomy. Only 1 limb was amputated and this followed an arterial injury.

Key Words: Upper limb - revascularisation - ischaemia - embolism - bypass - amputation - angioplasty

0-061

Biomechanics of median sternotomy closures

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Objective: Sternal dehiscence is commonly due to wire cutting through bone. A mathematical model of chest wall forces was formulated to calculate the maximum chest wall forces on coughing and verified on a cadaveric model. The properties of different closure materials and configurations were tested to destruction on a material testing machine. The properties of the bone-wire interface in a sheep sternal model were investigated by fatigue testing.

Methods: Force-displacement graphs were used to assess the rigidity of different closures. Cyclical loading with measurement of the amount of cutting through were conducted on adjacent pairs of bone samples to standardize the test closure technique.

Results: Six different fixation techniques were tested on a metal sternal model with multitwist closure displacing 0.37mm at a force of 20kg, straight 0.78mm, figure-of-8 wires 1.20mm, Sterna -band 1.37mm, repair wires 5.08mm, Ethibond 9.37mm. The single factor Anova test for the rigidity of the different closures had P-Values <0.0001. In the biological group, differences in displacement between each of the polyester (1.01mm), figure-of-eight (0.52mm), peristernal (0.72mm) and sternal band (0.66mm) groups versus standard closure (0.22, 0.22, 2.1, 3.2mm) in the paired samples were statistically significant (Student's paired t test p<0.01). There were statistically significant differences in the percentage cut through of polyester, figure-of-eight, peristernal and sternal bands (Anova p<0.001), versus standard closure.

Conclusion: We conclude that the force of severe coughing exceeds conventional sternotomy closure strength. In our sheep sternum model we have quantified the differing rate of cutting through bone of five types of median sternotomy closure techniques. Peristernal and sternal band closure techniques are significantly superior to standard closure. Use of polyester and figure-of-eight closures requires caution.

0-062

Does the type of closure of midline incision influence the incidence of incisional hernia?

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The surgical literature reports that incidence of incisional hernia for midline incision is about 20%⁽¹⁾. Both systemic and local factors have been implicated. We have studied different methods of wound closure to determine whether these play an important role.

Sixty consecutive patients, who underwent midline abdominal incision, were entered into the study. Informed consent was obtained. Patients were randomly assigned to one of three types of closure:

- 1) Mass closure with Prolene Loop 1 only;
- 2) Mass closure with Prolene Loop 1 and external tension sutures of Nylon 1; and
- 3) Mass closure with Prolene Loop 1 and internal tension sutures of Vicryl 1.

Titanium clips were applied to the wound edges after closure at standard intervals. The patients underwent clinical examination and abdominal X-ray on day 7 and 3 months to determine clip movement.

Results: Of the 60 patients included into the trial 10 were lost to follow-up; 6 patients (12%) developed incisional hernia. This table illustrates the results for different types of closure:

	Group 1	Group 2	Group 3
Number	16	16	18
Hernia	1	3	2

Pearson's Chi-Square test with cross tabs for the different groups (p= 0.548) NS

Conclusions:

- 1) Incidence of incisional hernia for midline incision was 12% (6 patients of 50)
- 2) Different types of closure of midline abdominal incision does not appear to influence the incidence of incisional hernia.

Reference:

- 1) Quantitative Evaluation of abdominal wall perfusion after different types of laparotomy closure using laser-fluorescence videograph.
- 2) Hoer J; Tons C, Schechtrupp et al. Hernia. 2002 March; 6(1): 11-16

0-063

Epidemiology of polycystic ovary disease

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Polycystic Ovaries (PCO) incorporating Polycystic Ovarian Syndrome (PCOS) is a heterogenous condition that still defies absolute rigid definition but is certainly recognisable. Polycystic ovaries can be detected in all with PCOS, in many normal women, in many children and in a proportion of patients with hypogonadotrophic hypogonadism. Several studies have estimated the prevalence to be approximately 20% in normal adult women, but can be as high as 50% in women undergoing IVF treatment.

Polycystic ovaries are related to metabolic sequelae. Amongst the late ones are obesity, diabetes mellitus that is associated with hyperinsulinaemia cardiovascular disease, high LDL and hypertension. These conditions represent a significant health problem in Western societies and increasingly in emerging economies. Familiar aggregates of PCOS is well recognised. There is evidence of the involvement of at least two genes in the aetiology of PCOS, the steroid synthesis gene CYP 11a and the insulin gene VNTR regulatory polymorphism. Apart from the association with infertility and endometrial cancer, the epidemiology of the cluster of metabolic sequelae of PCO could suggest that such sequelae are the result of PCO being present at a younger pre-menopausal age. Intriguingly, it has been suggested that PCO and PCOS can also be inherited from the father's side. It would follow that there is a male PCO like syndrome and logically the incidence in males ought to be as high as that in women and is manifested, in so far as late metabolic sequelae go, in exactly the same way. The implications are therefore that we are dealing with a condition that has serious Public Health consequences and has a wide range of medical implications.

0-064

Causes of recurrent miscarriage in Malta: a new factor

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The Recurrent Miscarriage Clinic within the Department of Obstetrics & Gynaecology aims at investigating and quantifying the causes of recurrent miscarriage in the Maltese community.

Methods: 56 couples were investigated by the Recurrent Miscarriage Clinic at St Luke's Hospital, G'Mangia, Malta. The criteria for referral to the clinic included 2 or more consecutive miscarriages. Referral was open to gynaecologists as well as General Practitioners and other members of the medical profession. A standardised detailed interview with the couple assessed obstetric and other medical issues. Investigations included generic tests such as complete blood count, renal and liver function, folate levels. Thrombophilia screen included Factor II, Factor V Leiden and MTHFR mutations. Activated Protein C resistance, Protein C, S; anti Thrombin III and homocysteine levels were also assessed. Anticardiolipin antibodies were checked as well as anti nuclear antibodies. A full hormone profile including FSH, LH, androgens, prolactin and thyroid function was taken. In view of