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**CONFERENCE BOOK  
OF ABSTRACTS**

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<b>Session:</b>	<b>Thursday, 4 May, 8.40-9.00am</b>
<b>Presenter:</b>	<b>Peter Sykes (University Otago)</b>
<b>Topic:</b>	<b>Luteinising Hormone in Endometrial Cancer</b>
<b>Room:</b>	<b>Endeavour Room</b>

## *ABSTRACT*

### **Objectives:**

To summarise our research to date exploring a potential relationship between Leutinising hormone (LH) and endometrial cancer.

### **Methods**

Literature review.

Immunohistochemical staining of histological specimens.

The impact of LH on the production of VEGF in primary tissue culture.

RNA micro array of endometrial cancer and normal endometrium.

Case control study of LH levels in women with and without endometrial cancer.

### **Results**

Although the primary role of LH is in the ovary, gonadotrophins also have activity in the uterus. Women with increased risk of endometrial cancer are also likely to have increased LH levels (eg. post menopause or PCOS). Some research has actually demonstrated increased LH levels in these women. Other research has also demonstrated that HCG and LH may promote angiogenesis and tumour invasiveness.

Our research showed Immunohistochemical staining of LH receptors and associated transcription factors reveal strong staining in all grades of endometrial cancer. Microarray confirms that LH receptors are conserved and that VEGF is consistently elevated in endometrial cancer tissue.

In cultured normal endometrial stromal cells, HCG resulted in modification of production of VEGF and decrease release of VEGF. The same technique applied to cultured cancer cells showed marked increase in VEGF production following stimulation with HCG. With this in mind we investigated the impact of LH on the excretion of VEGF in a series of tumour primary tissue cultures. Although two tumour demonstrated an increase in VEGF excretion, overall there was no significant impact.

We examined the serum levels of LH in a group of women with endometrial cancer and an age matched group of women without endometrial cancer, no increased production could be identified.

### **Discussion**

LH has the potential to impact on the behaviour of endometrial cancer, however no consistent response to LH was demonstrated and women with endometrial cancer do not have higher levels of LH.

### **Conclusion.**

The role of LH in endometrial cancer remains unclear.



<b>Session:</b>	<b>Thursday, 4 May, 9.00-9.20am</b>
<b>Presenter:</b>	<b>Robert Rome (Royal Womens and Freemasons Hospitals, Melbourne)</b>
<b>Topic:</b>	<b>Sentinel Nodes in Cervical Cancer: a pilot study</b>
<b>Room:</b>	<b>Endeavour Room</b>

## *ABSTRACT*

**Objectives:** To determine whether there are sentinel lymph nodes (SLNs) in cervical cancer using a blue dye +/- radiocolloid, to determine the anatomical location of these nodes and to quantify the false negative rate for this technique.

### **Methods:**

The study involved 82 patients with carcinoma of the cervix stages 1a(2)-2a who underwent pelvic lymphadenectomy (PLND) as part of primary surgery. 1-2ml Patent blue V (73 patients) or methylene blue (9 patients) was injected into the lateral aspect of the cervix through the lateral fornices at 9 and 3 o'clock at the commencement of surgery. In 22 of these patients 10MBq of <sup>99m</sup>Tc-Antimony radiocolloid was injected into the same area 5 hours prior to surgery. SLNs were identified using scintigraphy and intraoperatively using a hand-held gamma probe. The location of blue and/or radioactive SLNs was anatomically mapped and the extirpated SLNs were more extensively sectioned and stained for cytokeratin.

### **Results:**

SLNs were detected using blue dye in 74 (90.2%) patients; these were bilateral in 52 and unilateral in 22 patients. The detection rate per side dissected was 126/164 (76.8%). SLNs were detected by radiocolloid in 19/22 (86%). With the combination of blue dye and radiocolloid was 21/22 (95.4%) patients and 39/44 (90.9%) per side dissected. SLNs were most commonly located in the "interiliac triangle", less frequently in common iliac LNs and in one case in a lateral sacral LN. The detection rates have increased over the course of the study suggesting that there is a "learning curve" for this technique. The ratio of non-sentinel nodes to sentinel nodes was approximately 5:1.

Fourteen (17%) patients had positive LNs. These were SLNs only (8 patients), SLNs and adjacent non-SLNs (3 patients), a 6mm focus in a non-SLN (1 patient) and a microscopic focus in a non-SLN parametrial node (1 patient). There were positive nodes in 1 of the 8 cases where no SLNs were identified. The "crude" false negative rate was 14%. The median follow-up is now 40mths (range 1-77) and to date there have been no pelvic sidewall recurrences.

### **Conclusions:**

These data indicate that SLNs do exist in cervical cancer. The limited anatomical distribution of SLNs in cervical cancer suggest that the standard extensive PLND with all its attendant morbidity may not be required in all cases of cervical cancer. More data from one or more carefully conducted multi-centre trials are needed before the standard PLND is modified.







**Session:** Thursday, 4 May, 9.40-10.00am

**Presenter:** Kailash Narayan (Rad onc)

**Topic:** Significance of Tumour Volume and corpus uteri invasion and patters of relapse in cervical cancer patient.

**Room:** Endeavour Room

*AUTHORS: K Narayan, R Fisher and D Bernshaw*

*Peter MacCallum Cancer Centre, Melbourne, Australia*

#### **ABSTRACT**

The purpose of this study was to show that in advanced cervical cancer patients treated with curative intent, tumor volume and uterine involvement has independent prognostic value. Eligible patients were those seen at the Peter MacCallum Cancer Centre between December 1995 and Dec 2003, newly diagnosed with a histological diagnosis of squamous cell carcinoma or adenocarcinoma of the cervix, FIGO-staged Ib to IVa and having undergone MRI and treated with curative intent. Potential prognostic factors considered were FIGO stage, clinical tumor diameter, histology, age, tumor volume and corpus invasion status. MRI was used to determine the tumor volume and whether there was invasion of tumor into the corpus uteri.

Two hundred and forty-nine patients were eligible for this study. The cut-off date for follow-up was Dec, 2004, four patients were lost to follow-up and the mean potential follow-up time was 5 years (range 0.5 to 8.1 years).

Six patients were treated by surgery alone. Twenty six patients received adjuvant post operative radiotherapy. Two hundred and seventeen patients had radical radiotherapy. Five patients were lost to follow-up. There were 85 (34%), 114 (46%), 44 (18%) and 6 (2%) patients in FIGO stages Ib, II, III and IVa, respectively. The tumors of 156 (63%) patients exhibited corpus invasion. The median tumor volume was 33 mL (range 1 to 628 mL).

Kaplan-Meier estimated 5-year overall survival rate for all patients was 60% (se=4%). Of the six factors examined, (using Cox regression multifactor analysis) tumor volume doubling (P=0.003, HR=1.32), Corpus invasion (0.014, HR=0.014) and Adenocarcinoma histology (0.018, HR=1.00) were significantly and independently associated with overall survival. In particular, after adjusting for corpus involvement and tumor volume, there was no evidence for any relationship between overall survival and either FIGO stage (P=0.20, HR=1.21), clinical diameter (P=0.16, HR=0.86) or Age (P=0.97, HR=1.00). Five year failure free survival for FIGO stages 1=66%, 2=64%, 3=53% and 4 was 33% (only 6 patients). Patterns of failure and salvage will be discussed.

We conclude that in patients with advanced cervical cancer, tumor volume and corpus invasion provide important prognostic information over and above that provided by FIGO stage, clinical diameter, histology and age.

#### **Session Notes:**

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**Session:** Thursday, 4 May, 10.30-10.45am  
**Presenter:** Michael O'Leary (KGV, NSW)  
**Topic:** The Effects of the National Cervical Screening Programme in Young Women  
**Room:** Endeavour Room

*Authors:*

*M O'Leary, M Abdel-Hadi, J Carter, S Pather, C Dalrymple.*

*Sydney Gynaecological Oncology Group, Royal Prince Alfred Hospital, Sydney.*

**ABSTRACT**

**Objectives:** to examine the effect of the cervical screening programme on the incidence, characteristics and outcomes in cervical cancer in women under the age of 35 presenting to a tertiary university hospital.

**Methods:** patient data were obtained from the Gynaecological Oncology Database at Royal Prince Alfred Hospital. A retrospective chart review was performed to complete the dataset. The ten year periods before and after the introduction of the National Screening Programme in 1991 were compared. Variables analysed included: age, stage, treatment, histopathology, length of follow up, status at the end of the study period, and survival in years. Statistical analysis was performed using JMP software.

**Results:** from 1981-1990, 120 pts of a total of 900 presenting with cervical cancer were under 35 years of age. From 1991-2000, the figure was 106/582 pts. 94/120 (78%) vs. 92/106 (86%) were stage 1. The percentage of Adenocarcinoma and Adenosquamous disease was higher in the 1991-2000 group. Overall 50% of patients had radical treatment. There was no difference between in treatment modalities between the groups. There was no survival difference between the groups. Statistical power was limited by the low numbers in the study.

**Discussion:** There was an overall decrease in total cancer cases and a shift towards younger patients following the introduction of the screening programme. There was also a trend towards earlier stage disease. The number of early disease patients is reflected in the amount of radical treatment. These findings correspond with reported literature from other screening programmes.

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<b>Session:</b>	<b>Thursday, 4 May, 10.45-11.00am</b>
<b>Presenters:</b>	<b>Rhonda Farrell (KEVII WA)</b>
<b>Topic:</b>	<b>Quality of Life and the role of sentinel node biopsy in the treatment of Vulvar Cancer</b>
<b>Room:</b>	<b>Endeavour Room</b>

*Authors: Farrell R, Gebiski V and Hacker N*

**ABSTRACT**

To determine the potential role of sentinel node biopsy in the treatment of women with vulvar cancer, structured interviews using a standard questionnaire and quality of life assessment form were performed on 60 patients who had received treatment for vulvar cancer and who at diagnosis would have been potential candidates for sentinel node biopsy (FIGO stage IB, II and III with clinically negative inguinofemoral lymph nodes). All women had undergone a complete inguinofemoral lymphadenectomy in a tertiary referral unit at least 12 months prior to the interview. Questions were structured into four parts; 1) sociodemographic characteristics, 2) experience of leg lymphoedema and related side effects, 3) preference for sentinel node biopsy had this procedure been offered at the time of surgery and the specific degree of risk each woman would take in missing a lymph node metastasis, as determined by using a 'standard gamble' table of preference, and 4) UBQ-C, a cancer specific valid multi-item quality of life form used to calculate quality of life adjusted survival. Results showed that 73% of the women reported lymphoedema, with 53% experiencing pain and 23% having had at least one episode of cellulitis. The effect of complete lymphadenectomy on overall quality of life was a negative one in 22/60 (37%) of women. Despite this, the overall quality of life in these women was reasonably good and averaged at 74% of perceived perfect health. If women had been given a choice of sentinel node biopsy over complete lymphadenectomy at the time of diagnosis, 80% reported that they would choose complete lymphadenectomy. The specific degree of risk of that each woman would take when considering sentinel node biopsy will be discussed and may help to determine the role of sentinel node biopsy in the future.

**Session Notes:**

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<b>Session:</b>	<b>Thursday, 4 May, 11.00-11.15am</b>
<b>Presenter:</b>	<b>Stuart Salfinger (MHW Vic)</b>
<b>Topic:</b>	<b>Surgical Management of Primary Peritoneal Carcinoma</b>
<b>Room:</b>	<b>Endeavour Room</b>

*Authors: S Salfinger, S Hyde, P Grant, D Allen*

*Mercy Hospital for Women, Melbourne*

*Abstract*

Objective: To review the surgical management of primary peritoneal carcinoma and the role of hysterectomy in management.

Method: All cases of primary peritoneal carcinoma treated at Mercy Hospital for Women between 2000 -2006 were identified via the oncology database. Prospectively collected data from the database was combined with data from a retrospective chart review of operating notes and histology reports.

Results: 23 cases of primary peritoneal carcinoma were identified. The average age of the patients was 64 years (range 40-91years). All cases were of serous or serous papillary adenocarcinoma. There were 17 cases of stage III and 6 cases of stage IV disease. Four patients had previously undergone hysterectomy for benign disease. In 3 patients the decision was made intra-operatively not to perform hysterectomy. 16 patients underwent hysterectomy at the time of primary surgery. Three of the patients who underwent hysterectomy had no evidence of uterine disease. Thirteen of the sixteen patients had evidence of uterine disease. One case of synchronous primary endometrial carcinoma was identified the other 12 cases had only small volume serosal involvement with no endometrial pathology.

Conclusion: Further assessment of the role of hysterectomy in primary peritoneal carcinoma is required to assess its contribution to treatment

**Session Notes:**

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**Session:** Thursday, 4 May, 11.15-11.30am

**Presenter:** Andrea Garrett (RWH Vic)

**Topic:** IP Chemotherapy

**Room:** Endeavour Room

*AUTHORS:* DR A. GARRETT, MR R. ROME, PROF M. QUINN, DR D. NEESHAM

*ABSTRACT*

**TITLE:-** Intraperitoneal Chemotherapy (IP) at the Royal Women's and Freemasons Hospitals, Melbourne.

**OBJECTIVES:-** To describe our experience with intraperitoneal chemotherapy used as second line treatment in the management of women with advanced ovarian cancer.

**METHODS:-** Retrospective review of all patients who had an intraperitoneal catheter placed for the administration of chemotherapy. Main outcome measures include median overall survival, median disease free survival and complications following IP chemotherapy.

**RESULTS:-** A total of 32 patients were identified as having received intraperitoneal chemotherapy between 1992 and 2003. The women received either IP chemotherapy alone (15, 46.9%) or IP and IV chemotherapy together (16, 50%). The IP agents used were cisplatin, carboplatin, paclitaxel or a combination of these. IP chemotherapy was either given as a single dose every three weeks or as a weekly dose depending on the agent used. Of the 32 women, 8 (25%) remain alive today (5 with no evidence of disease, one with known active disease and 2 with disease status unknown), 1 (3.1%) was lost to follow up and 23 (71.9%) succumbed to their disease. Median overall survival following diagnosis was 39 months. Median disease free survival following IP chemotherapy was 10 months. 15 (46.9%) women experienced any form of complication associated with IP chemotherapy and some women experienced more than one event. Complications included pain with administration (3, 20%), extravasation of the IP agent (5, 33.3%), infection requiring catheter removal (6, 40%), migration of the catheter (2, 13.3%) and bowel obstruction (1, 6.7%). One patient failed to receive any cycles of IP chemotherapy due to extensive adhesions that did not allow free flow of the chemotherapy agent. Non-catheter related complications included long term peripheral neuropathy and acute renal failure following administration of carboplatin.

**DISCUSSION:-** Despite the concerns regarding complications from intraperitoneal chemotherapy, there were only 3 (13.6%) serious adverse events in relation to the route of administration.

**IMPLICATIONS FOR PRACTICE:-** Given a survival advantage as reported in the literature, consideration should be given to the re-introduction of intraperitoneal chemotherapy in the management of advanced ovarian cancer as it is not associated with significant long term morbidity.















<b>Session:</b>	<b>Friday, 5 May, 10.45-11.00am</b>
<b>Presenter:</b>	<b>A Rao (RPA Women &amp; Babies)</b>
<b>Topic:</b>	<b>The Role of HPV DNA testing in the triage of patients with an inconclusive cervical smear</b>
<b>Room:</b>	<b>Endeavour Room</b>

### *Abstract*

The Sydney Gynaecologic Oncology Group, Sydney Cancer Centre; Department of Obstetrics and Gynaecology, Royal Prince Alfred Hospital and the University of Sydney  
Objective

To assess the role of high risk HPV testing in the triage of patients with an inconclusive cervical smear.

### Methods

All patients referred to two colposcopists (JC, SP) at the Royal Prince Alfred Hospital between 01/01/02 and 31/12/05 were included in the study. All data was collected prospectively in a database and analysed retrospectively. Patients were excluded from the study if they were pregnant at the time of initial evaluation, had previous dysplasia or did not have an HPV DNA test performed. HPV testing was carried out using the Hybrid Capture-2 test for high risk HPV DNA subtypes.

### Results

A total of 101 patients were included in the study. Final histology revealed high grade cervical in 48% of patients, low-grade dysplasia in 22% of patients and no dysplasia in 28%. One patient had an early cervical cancer. HPV testing showed 79% of patients were HPV positive and 21% HPV negative. Only one of 21 patients with a negative HPV DNA test had high-grade dysplasia on biopsy.

### Discussion

Our preliminary data indicates that in patients with an inconclusive cervical smear and a negative HPV DNA result, the risk of histologically confirmed high-grade dysplasia is very low. If this finding is confirmed in larger series, this test may have a significant future role in the triage and management of these patients.





<b>Session:</b>	<b>Friday, 5 May, 11.00-11.15am</b>
<b>Presenter:</b>	<b>Tom Walsh (RBW, Qld)</b>
<b>Topic:</b>	<b>Prognostic factors for surgical 1 C endometrial cancers</b>
<b>Room:</b>	<b>Endeavour Room</b>

Authors: Walsh T, Carraro M, Dicke G, Land R, Perrin L, Obermiar A, Crandon A, Tripcony L, Nicklin J.

Queensland Centre for Gynaecological Cancer, Royal Brisbane and Women's Hospital.

#### *Abstract*

#### Objective

The objective of this study was to determine prognostic variables for survival and disease specific survival in patients with stage 1C endometrial adenocarcinoma.

#### Methods

A retrospective analysis was performed of 584 women with stage 1 C carcinoma of the endometrium, who presented between January 1981 and December 2005 at QCGS, and included surgery as part of their management.

The following factors were extracted from our database and chart review- histology, grade, lymphovascular invasion, extent of surgery (surgical staging in addition to hysterectomy), age, performance status and radiotherapy. Patients with other synchronous tumors were excluded.

All factors were evaluated using univariate and multivariate Cox models, to determine the prognostic significance with respect to endpoints of disease specific survival (DSS), and relapse free survival (RFS).

#### Results

The most important prognostic factor for survival was tumour grade. The 5-year DSS rates for well and moderate, was 97% [95, 99] versus 72% [62, 81] for poorly differentiated tumors. The 5-year disease specific survival for histology was endometrioid 93%, papillary serous 55%, clear cell 73% and mixed and sarcoma 75%.

#### Conclusions

The following were found to be significant poor prognostic factors; grade 3 differentiation, increasing age, lymphovascular invasion and papillary serous histology.



<b>Session:</b>	<b>Friday, 5 May, 11.15-11.30am</b>
<b>Presenter:</b>	<b>P Singh (Newcastle, NSW)</b>
<b>Topic:</b>	<b>Neoadjuvant chemotherapy versus primary surgery in advanced epithelial ovarian carcinoma: A retrospect</b>
<b>Room:</b>	<b>Endeavour Room</b>

*Authors:* P Singh, G Otton. Hunter New England centre for Gynaecological cancer (HNECGC)

*Abstract*

### **Objective**

We report our experience with Neoadjuvant chemotherapy (NACT) and interval cytoreduction in patients with FIGO stage 111C and 1V ovarian and primary peritoneal cancer compared with a similar group of patients who had primary surgery followed by chemotherapy.

### **Material and Method.**

Between January 1992- December 2005, 34 patients of advanced ovarian and primary peritoneal cancer who received NACT were identified from our database. These patients were considered unsuitable for primary surgery on the basis of ECOG status  $\geq 3$ , severe medical co- morbidities, massive ascites, pleural effusion and CT evidence of unresectable upper abdominal disease. All patients had a tissue diagnosis before initiation of chemotherapy.

A comparable group of 149 controls, matched for histology, FIGO stage that underwent cytoreductive surgery followed by chemotherapy during the same period were identified and details recorded.

Patients in both group-received platinum based chemotherapy. Surgery was performed by the Gynaecological Oncologists at the John Hunter Hospital.

### **Results.**

There was no difference in the median age (NACT -68 yrs, Control -65 yrs) of the two groups. Median length of stay was 7.5 days for NACT group (5-12) as compared to 16 days (9-50) in the control group. (P value-0.0029).

Optimal cytoreduction was achieved in 88% of NACT vs 34% in control ( $p < 0.0001$ ) despite 66% of the controls requiring bowel resection vs 24% in NACT group.

The postoperative complication was 26 % in control and 12% in NACT group ( $p = 0.073$ )

Chemotherapy related problems were also high in control 22% vs 12% in NACT group ( $p = 0.1738$ )

There was no statistical significant difference in the time to recurrence, disease free survival and overall survival between the two groups.

### **Discussion.**

NACT followed by cytoreductive surgery is a reasonable option in a subset of patients who are unsuitable for primary cytoreductive surgery. In comparison to the conventional strategy, it is less morbid with equivalent survival. On the basis that optimal cytoreduction was achieved in a greater percentage of NACT group with fewer bowel surgeries, it may be reasonable to consider this in the context of a randomised trial examining IP chemotherapy.





<b>Session:</b>	<b>Friday, 5 May, 11.45-12.00pm</b>
<b>Presenter:</b>	<b>Marcelo Carraro</b>
<b>Topic:</b>	<b>Vaginal Vault Brachytherapy in stage 1b/c endometrial cancer</b>
<b>Room:</b>	<b>Endeavour Room</b>

*Authors:* Marcelo Carraro, Robyn Cheuk, Tom Walsh, Jim Nicklin, Lewis Perrin, Alex Crandon, Russel Land, Andreas Obermair.  
Queensland Centre for Gynaecological Cancer, Brisbane.

*Abstract*

**Background:** The value of adjuvant radiation therapy (RT) in early-stage endometrial carcinoma remains controversial due to the lack of data from randomized trials. While low-risk patients are treated with surgery alone, intermediate and high-risk patients with negative pelvic lymph nodes are believed to benefit from post-operative Vaginal Vault Brachytherapy (BT).

**Objective:** It was the aim of the study to determine the effect of BT on disease-free survival (DFS).

**Patients and methods:** Between 01/1996 and 06/2002 we saw 294 patients with FIGO stage 1b and 1c endometrial cancer. Eligible patients had to have TAHBSO plus pelvic lymph node dissection for endometrioid adenocarcinoma of the endometrium, stage 1b (grade 2 or 3) or stage 1c (all grades) disease. Patients with external beam radiotherapy were excluded. BT was given as LDR to the top 3 cm of the vagina. Multivariate Cox models were calculated to determine independent prognostic effects.

**Results:** 145 patients (49.3%) had BT postoperatively. Patients were more likely to have BT if they had moderately or poorly differentiated tumours or stage 1c disease. After a median follow-up of 54 months, 24 patients (8.1%) experienced tumour recurrence and 33 patients (11.2%) died. For all patients DFS at 60 months was 87.8%. In univariate analysis, BT had no influence on DFS in stage 1b or in stage 1c patients. In multivariate Cox models on DFS, stage and grade were prognostic, where BT failed to attain significance.

**Conclusion:** The use of BT in patients with stage 1b/c endometrioid endometrial cancer was not associated with improved DFS. A randomized trial is warranted.

**Session Notes:**

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<b>Session:</b>	<b>Saturday, 6 May, 8.30-8.50am</b>
<b>Presenter:</b>	<b>Russell Hogg (Westmead Hospital)</b>
<b>Topic:</b>	<b>Clinicopathology of borderline and grade 1 serous ovarian tumours</b>
<b>Room:</b>	<b>Endeavour Room</b>

*AUTHORS:* Russell Hogg; James Scurry; Soo-Nyung Kim

GYNAECOLOGICAL CANCER CENTRE, ROYAL HOSPITAL FOR WOMEN, SYDNEY

### *ABSTRACT*

#### **Background**

The dual pathway hypothesis of low grade and high grade ovarian serous cancers explains many of their clinicopathologic features. Low grade encompasses serous borderline tumour (SBLT) and grade 1 invasive serous carcinoma (Grade 1 SC). While there have been many studies on SBLT, there are few studies examining how SBLT relates to Grade 1 SC, particularly in terms of microinvasion (MI), micropapillary pattern (MP) and invasive implants.

#### **Study design**

To investigate the relationship between SBLT and Grade 1 SC and to learn more about the histology of Grade 1 SC, we performed a clinicopathologic review of 46 women with SBLT and 16 with grade 1 SC.

#### **Results**

Thirteen/46 (28%) SBLT contained MP, 12/ 46 (26%) MI and 19/46 (41%) extra-ovarian implants (i.e. high stage tumours) of which 1/19 (5%) was invasive. Three/46 (7%) SBLT (including 2 MP) recurred, all of which were high stage with non-invasive implants. No MI SBLT's recurred. The 16 Grade 1 SCs were easily divided into 3 histological types: 1) SBLT with invasion qualitatively resembling MI but greater in size (SBLT-MI type), 2) Tumour component resembling MI but without SBLT (pure MI type) and 3) Tumours not resembling MI (non-MI type). Nine/16 (56%) grade 1 SC recurred, comprising 5/5 SBLT-MI type, 3/5 pure MI and 1/6 non MI type. There was no MP in any of the grade 1 SC. Implants in SBLT that recurred resembled pure MI type of grade 1 SC histologically.

#### **Conclusions**

High stage is most important prognostic marker in SBLT. MP is common, does not worsen prognosis per se, but may be associated with higher stage. MI does not worsen prognosis. Grade 1 SC is less common and has a worse prognosis than SBLT. It is easily separated into 3 histologic types: SBLT-MI, pure MI and non MI types. MP has no relationship with grade 1 SC. The histology of invasive implants resembles grade 1 SC of pure MI type.



**Session:** Saturday, 6 May, 8.50-9.10am

**Presenter:** Andreas Obermair (Queensland Centre for Gynaecological Cancer)

**Topic:** CA125 – A new prognostic model for surgical stage I epithelial ovarian cancer

**Room:** Endeavour Room

*AUTHORS:* Andreas Obermair, Arlan Fuller, Elisa Lopez-Varela, Toon van Gorp, Ignace Vergote, Lynne Eaton, Jeff Fowler, Michael Quinn, Ian Hammond, Donald Marsden, Anthony Proietto, Jonathan Carter, Margaret Davy, Lee Tripcony, Nadeem Abu-Rustum

**ABSTRACT**

**Purpose:** To evaluate the impact of preoperative CA-125 on overall survival in patients with surgical stage 1 epithelial ovarian cancer (EOC) and to establish a prognostic index to identify patients in different risk categories.

**Methods:** Data of 600 surgically staged patients with FIGO stage 1 EOC treated in eleven gynaecological cancer centres were analysed. Eligible patients include those with invasive EOC where a preoperative CA-125 was obtained and standard surgical staging performed. Preoperative CA-125 values were compared with other prognostic factors and univariate and multivariate Cox models were calculated. A prognostic score (ECO1) was constructed from 456 patients with complete data sets.

**Results:** CA-125 levels >30 U/mL were associated with higher grade, substage 1B and 1C, non-mucinous histologic cell type. Multivariate analysis confirmed preoperative serum CA-125>30U/mL (OR 2.7) and age at diagnosis >70 years (OR 2.6) as the only independent predictors for overall survival. ECO1 (Epithelial Carcinoma of the Ovary stage 1) is a score based on the sum of individual scoring points. Scoring points are given for CA-125>30U/mL (3 points), substage 1C (1 point) and grade 2 or grade 3 (1 point). Patients with ECO1 scores of 0 to 2 (n=142, 31.1%), and 3 to 5 (n=314, 68.9%) had a 5-year survival rate of 97% and 86%, respectively (Log Rank p 0.002).

**Conclusion:** The ECO1 score identifies stage 1 patients with extremely good survival more accurately than histologic type, substage and grade. Patients with an ECO1 score ≤2 may not benefit from adjuvant chemotherapy.

**Session Notes:**

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**Session:** Saturday, 6 May, 9.10-9.30am  
**Presenter:** Gerladine Goss (Mot)  
**Topic:** IP Therapy in ovarian cancer – an overview  
**Room:** Endeavour Room

*Authors: Geraldine Goss MBBS MD FRACP, Medical Oncologist  
Monash Medical Ccentre/Box Hill Hospital Melbourne Vic*

Despite advances in adjuvant therapy, the majority of women with optimally debulked Stage III ovarian cancer relapse, with most disease recurring within the abdominal cavity.

The use of intraperitoneal (IP) chemotherapy offers a therapeutic advantage for platinum and paclitaxel when measured as a peritoneal to plasma concentration ratio. Three randomised studies have shown improvements in overall survival for women treated with IP chemotherapy following surgical debulking of ovarian cancer. However, studies have been confounded by excessive toxicity, related to both to the catheter used for administration and to the drugs themselves. The optimal use of IP therapy from the standpoint of efficacy and quality of life remains undefined, and, while the NCI have recommended consideration of IP therapy for women following optimal surgical debulking of ovarian cancer, a suitable regimen has not been defined. Studies using IP cisplatin will be discussed, as well as available data on use of IP carboplatin.

**Session Notes:**

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<b>Session:</b>	<b>Saturday, 6 May, 9.30-9.50am</b>
<b>Presenter:</b>	<b>Felix Chan (Liverpool Health Service)</b>
<b>Topic:</b>	<b>Metastatic Ovarian Cancer form Gall Bladder</b>
<b>Room:</b>	<b>Endeavour Room</b>

*Abstract*

Gall bladder cancer is an uncommon condition often found at pathological examination of tissue after gall bladder removal. Metastatic spread to the ovaries from gall bladder cancer as primary presentation is rare. Three cases will be presented of patients with metastatic ovarian cancer from gall bladder. The pathogenesis, histological features and presentation will be discussed. Relevant literature will be discussed. Surgical removal of the ovarian disease can improve symptoms but does not alter the progression and prognosis of the disease.

**Session Notes:**

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Session Sponsored By:



<b>Session:</b>	<b>Saturday, 6 May, 10.30-10.50am</b>
<b>Presenter:</b>	<b>Neville Hacker (Royal Hospital for Women)</b>
<b>Topic:</b>	<b>Thromboembolic complications in patients with clear cell carcinoma of the ovary</b>
<b>Room:</b>	<b>Endeavour Room</b>

*Authors:* Yusuke Matsuura, Greg Robertson, Donald E Marsden, Soo-Nyung Kim, Val Gebiski, Neville F Hacker.

Gynaecological Cancer Centre, Royal Hospital for Women and University of New South Wales, Sydney, Australia

### *Abstract*

**OBJECTIVES.** The purpose of this study was to define the incidence of deep venous thrombosis (DVT) and pulmonary embolism (PE) in patients with clear cell carcinoma (CCC) of the ovary and to investigate the prognostic factors in such patients.

**METHODS.** Between January 1987 and December 2003, 641 women with primary invasive epithelial ovarian cancer underwent treatment at the Royal Hospital for Women in Sydney, Australia. Sixty-six patients (10.3%) with CCC were identified from the data bank, and their data were compared with a matched-control group of 132 patients with non-clear cell epithelial ovarian carcinoma.

**RESULTS.** A thromboembolic event, (deep venous thrombosis or pulmonary embolism), was noted in 27.3% of patients with clear cell carcinoma, compared to 6.8% of patients with other epithelial ovarian cancers. PE was detected in 13.6% and 3.8% of patients, respectively. In patients with CCC, deep venous thrombosis was frequently observed before operation or at the time of recurrence. In a multivariate analysis of patients matched for age and stage, the occurrence of a DVT or the presence of endometriosis were significant predictors of clear cell histology. Within the clear cell group, no particular risk factor for deep venous thrombosis could be identified. Metastases of 50 mm or greater in diameter, ascites of 1000 ml or more, advanced FIGO stage, and the occurrence of DVT were poor prognostic factors for clear cell carcinoma in univariate analysis, but in a [multivariate Cox regression analysis](#), only FIGO Stage and occurrence of DVT remained significant.

**CONCLUSIONS.** The incidence of venous thromboembolic events was found to be significantly higher in patients with clear cell carcinoma when compared to patients with other epithelial ovarian cancers. The occurrence of a DVT was an independent poor prognostic factor for clear cell carcinoma.





<b>Session:</b>	<b>Saturday, 6 May, 10.50-11.10am</b>
<b>Presenter:</b>	<b>Andreas Obermair (Queensland Centre for Gynaecological Cancer)</b>
<b>Topic:</b>	<b>Optimal treatment of elderly patients presenting with Stage III and IV ovarian cancer</b>
<b>Room:</b>	<b>Endeavour Room</b>

*Authours:* Andreas Obermair, Danny Youlden, Peter Baade, Marcelo Carraro, Dan Jackson, Monika Janda

### *Abstract*

**Background:** Elderly patients with stage III and IV ovarian are less likely to receive radical surgery followed by chemotherapy according to current guidelines compared to younger patients. Decisions to limit treatment are often made under the assumption that the risks outweigh the benefits. The present investigation was undertaken to establish a risk score for patients  $\geq 65$  years to die within 12 months from diagnosis of stage III and IV epithelial ovarian cancer.

**Methods:** Data from the Surveillance, Epidemiology and End Results (SEER) cancer registry were received for all patients diagnosed between 1992 and 1999, with complete follow-up to 2002. Patients were eligible if they had stage III or IV ovarian cancer and age at diagnosis was  $\geq 65$  years. We excluded patients if they were not covered by Medicare or were a member of a Health Maintenance Organisation (HMO), resulting in 4,424 eligible patients. Frequency distributions, univariate and multivariate models were calculated using the statistical package SAS.

**Results:** Only 15% of patient had no registered co-morbidity. For 20% of patients neither surgery nor chemotherapy was recorded, 15% received chemotherapy only, 16% surgery only and 48% of patients received both chemotherapy and surgery. In the multivariate model only age at diagnosis, and respiratory, renal or endocrine co-morbidity were significantly associated with the risk to die within the first 12 months of diagnosis. Subsequently, only patients' age, as well as presence or absence of respiratory, renal or endocrine co-morbidities directly contributed to the risk score. Within each of the risk groups, patients who received neither chemotherapy or surgery to treat ovarian cancer had the lowest survival, with 19.6% of these patients with a low risk score, 8.3% of patients with an intermediate risk score and 5.7% with a high risk score still alive 12 months after diagnosis. Similarly, within each of the risk groups, patients who received both chemotherapy and surgery had the highest overall survival at 12 months (90.0% of patients in the low risk group, 79.2% in the intermediate risk group and 54.7% in the high risk group).

**Conclusions:** This paper demonstrates that age and respiratory, renal or endocrine co-morbidity are predictive of the risk of elderly ovarian cancer patients to die within the first 12 months of diagnosis of ovarian cancer. However, the strongest risk factor is the absence of treatment with the combination of surgery and chemotherapy.



<b>Session:</b>	<b>Saturday, 6 May, 11.10-11.30am</b>
<b>Presenter:</b>	<b>Paul Mainwaring (Mater Hospital, South Brisbane)</b>
<b>Topic:</b>	<b>Directions in Clinical Studies for Advanced Ovarian Cancer: Preclinical Evidence</b>
<b>Room:</b>	<b>Endeavour Room</b>

### *Abstract*

Ovarian carcinoma is the leading cause of death from gynaecologic cancer. Despite excellent initial tumour response rates of 80% to surgical debulking with taxane- and platinum-based intravenous (3-weekly or dose-dense)/intraperitoneal chemotherapy, most women with advanced ovarian/fallopian tube/peritoneal carcinoma will ultimately develop drug-resistant disease. The use of second-line chemotherapeutic agents, such as doxorubicin, topotecan, gemcitabine, and vinorelbine, can lead to a response rate of 15% to 25%. The development of in-vitro sensitivity assays have attempted to improve discrimination of non-responding patients. Clearly, the development of better therapeutic strategies requires a better understanding of the biology of ovarian carcinoma.

Significant advances in the dissection of molecular changes associated with the development of ovarian cancer histological subtypes have been made, such as alterations in the *p53*, *kras*, *ras/raf*, and *pten* pathways. Epigenetic changes may permit the development of strategies designed to overcome resistance to current chemotherapeutic strategies. The application of SNP, microarray, and comparative proteomic strategies may enhance our characterisation of these changes. Fruit-fly and mouse models have recently been described affording the opportunity for pre-clinical studies to aid the design of clinical trials incorporating translational correlative studies. Initial focus has concentrated on similarities between endometriosis and epithelial ovarian cancer.

Description of angiogenic/lymphangiogenic pathways associated with the development of ovarian cancer will lead to clinical studies exploring anti-angiogenic approaches.

Early descriptions of distinct morphological changes in epithelial ovarian cancer have also led to the design of passive and active immunotherapeutic clinical strategies, which are yet to deliver unequivocal evidence for the immunological response to the targets, let alone evidence for clinical efficacy.

Clearly the next several years will be full of exploratory studies with potential to deliver small but significant steps in survival for women with advanced disease.

(A/Prof Paul Mainwaring, Director Medical Oncology, Mater Adult Hospital, April 2006.  
paul.mainwaring@mater.org.au)

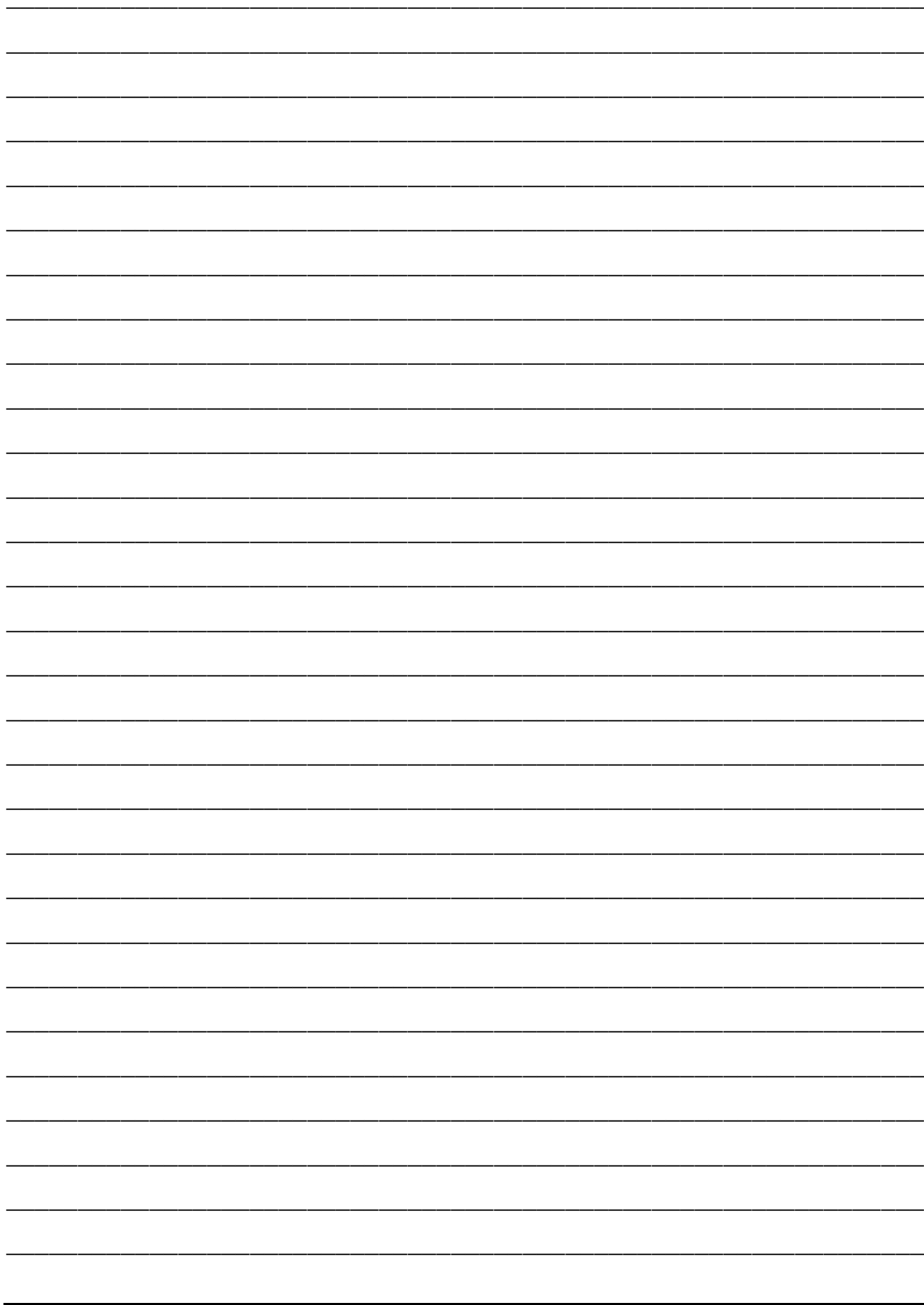
### **Session Notes:**

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**Session:** Saturday, 6 May, 11.30-11.50am

**Presenter:** Jane McNeilage (Monash Medical Centre)

**Topic:** cDNA microarray analysis of genes involved in vulvar cancer: identification of a cell adhesion molecule

**Room:** Endeavour Room

Authors : Jane McNeilage<sup>1</sup>, Maria Alexiadis<sup>2</sup>, Peter Grant<sup>2</sup>, Tom Jobling<sup>1</sup>, Geoff Laslett<sup>4</sup>, Albert Trajstman<sup>4</sup>, Peter Fuller<sup>3</sup>, and David Allen<sup>2</sup>

<sup>1</sup>Gynaecology Oncology Unit, Monash Medical Centre 1, <sup>2</sup>Prince Henry's Institute for Medical Research, <sup>3</sup>Gynaecology Oncology Unit, The Mercy Hospital for Women <sup>4</sup>CSIRO Mathematical Information Sciences

#### *Abstract*

Vulvar cancer affects 1.9 per 100,000 women in Victoria (Canstat, 2003). Eighty-five percent are squamous cell carcinomas (SCC). Based on epidemiologic and clinicopathologic observations vulvar cancer can be divided into two groups: HPV positive and HPV negative. The different clinical characteristics of the two groups suggest that molecular pathways leading to SCC may be different. Comparative genomic hybridisation studies support this with the demonstration of gains and losses that differ between the two groups. The aim of the present study was to use cDNA microarray technology to examine differences in gene expression between healthy vulvar skin and vulvar SCC. Patients were obtained from both the Mercy Hospital for Women and the Monash Medical Centre. Tissue was collected at the time of surgery and stored immediately at  $-80^{\circ}\text{C}$ . Total RNA was extracted from the frozen tissue using standard techniques. A 'pool' of equal amounts of total RNA from nine different healthy vulvar skin samples, removed at the time of a posterior vaginal repair, was compared by microarray analysis to total RNA from seven different SCC samples and one VIN 3 sample using standard techniques and data analysis. Further analysis of specific genes by RT-PCR and Real Time RT-PCR and the implications for vulvar disease will be discussed.

#### **Session Notes:**

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