

Ob/Gyn Resident Research Abstracts



The Resident Research Symposium was born on a hillside in Marshall, CA at the Marconi Conference Center. In the Spring 2002 Kaiser Permanente (KP) Northern California held a weekend retreat for Residency Program Directors, Assistant Program Directors and Chief Residents on "Residents in Research." This was an attempt to improve and increase the publications from KP residents.

The three Ob/Gyn Program Directors, Robin Field, MD, of San Francisco, David Walton, MD, of Oakland, and I, decided that we would rotate as hosts of a regionwide symposium for Ob/Gyn residents each spring. The first conference was held in 2003 with projects from each of the graduating Chief Residents from the three facilities. Each year the quality of the projects has increased dramatically. This year, our fourth Symposium at the brand new Santa Clara Medical Center attracted nearly 100 attendees. Since it coincided with the 25th anniversary of the first Santa Clara Ob/Gyn graduating class, a residency alumni/retired faculty homecoming celebration was held.

The following is from the program syllabus: "The mission of this annual Resident Research Symposium is to foster a spirit of scientific inquiry for Kaiser Permanente Ob/Gyn residents and their faculty. Our goal is to familiarize residents with the research study techniques through first-hand experience in conducting research and presenting their findings. Our hope is that all who participate will find this academic pursuit invigorating and that a critical interest in research will be a cornerstone for their growth as obstetricians and gynecologists."

— David Levin, MD,
Ob/Gyn Residency Program Director
Director, Santa Clara Medical Center Graduate Medical Education



Photo: Lisa D Lau

Ob/Gyn Residents at the Symposium.

ficity = 97%, PPV = 83%, NPV = 96%. Together, these two tools were able to accurately predict the need for staging in 90 of 95 patients. They underpredicted the need for staging in 4 of 95 patients and overpredicted the need for staging in 1 of 95 patients.

CONCLUSION: Preoperative grading and use of intraoperative assessment of invasion may be useful criteria in predicting patients with endometrial adenocarcinoma who may not benefit from additional staging. Additional studies are needed to determine the outcome of patients who were not appropriately staged as a result of inaccurate grading or assessment of invasion.

Management of ASC-H Pap smears using age and HPV status as a guide

Kenya S. Tatman, J.

OBJECTIVE: The purpose of this study was to analyze the cytologic diagnosis of ASC-H (atypical squamous cells, cannot exclude high grade squamous intraepithelial lesions (HGSIL)) with human papillomavirus (HPV) testing and age as risk factors, and correlate these factors with follow-up cytology and/or cervical biopsy results.

METHODS: A retrospective cohort study was performed for the period of July 1, 2003—June 30, 2004. All ASC-H cases in KP Northern California were evaluated. Age, HPV test results, and follow-up cytology and/or cervical biopsy results were reviewed and analyzed. Exclusion criteria included a history of HGSIL within the past five years, no follow-up since ASC-H Pap, history of cervical can-

Comparison of preoperative, intraoperative, and postoperative grading and staging for endometrial cancer

Phan C, Tatman J.

PURPOSE: The objective of this study is to determine the accuracy of preoperative grading and intraoperative assessment of myometrial invasion for staging of endometrial adenocarcinoma at the KP Santa Clara Medical Center.

METHOD: A retrospective chart review was performed on all patients who underwent hysterectomy with or without additional staging procedures for endometrial cancer between January 1, 1999 and December 30, 2004. To evaluate accuracy of grading, preoperative biopsy results obtained at the KP Santa Clara Medical Center were compared to final histologic grading. To evaluate accuracy of gross evaluation of myometrial invasion, intraoperative assessments by the pathologist were compared to the final histologic determination of myometrial invasion.

RESULTS: A total of 332 hysterectomies were performed in patients with endometrial cancer over the six-year study period. Of these, 155 patients had endometrial biopsies originally read by pathologists at KP Santa Clara Medical Center. Eighty-two point six percent (128/155) of the biopsies were accurate with no change between original and final grade. Fifteen point five percent (24/155) were upgraded while 4.5% (7/155) were downgraded. Of the 337 total hysterectomies, 144 were examined intraoperatively by a pathologist for invasion. Depth of invasion was categorized as no invasion into the myometrium, less than one half the total distance of the myometrium, or greater than one half of the total distance of the myometrium. Accuracy of the evaluation of invasion was 69% with 100 of 144 having no change in the invasion compared to the final pathology. When only two categories were used (less than one-half invasion and greater than one-half invasion), the accuracy was 93% (135/144), sensitivity = 80%, speci-

cer, history of total hysterectomy/no cervix present, Pap reread as a different diagnosis, and Pap done at the time of colposcopy for atypical cells of undetermined significance (ASCUS)/low grade squamous intraepithelial lesion (LGSIL). For the HPV analysis, those with no HPV done within six months of the ASC-H pap were also excluded.

RESULTS: A total of 296,740 Pap tests were performed during the specified time period, of which 374 (0.1%) were ASC-H. HPV testing was performed on 72.7% of ASC-H. Age data was available for 100%. Follow-up cytology and/or cervical biopsy results were available for 92.8%. Among those included in the analysis, oncogenic HPV DNA was detected in 68.9%. Lesions of cervical intraepithelial neoplasia 2 or worse (\geq CIN2) were present in 59.5% of ASC-H HPV positive specimens, compared with only 14.5% of ASC-H HPV negative specimens ($p \leq 0.01$). Lesions of \geq CIN2 were present in 50.3% of ASC-H age <40 patients, compared with 42.4% of ASC-H age \geq 40 patients ($p = 0.18$).

CONCLUSION: Patients with a diagnosis of ASC-H on cervical cytology who do not harbor oncogenic HPV DNA have a significantly lower risk of having an underlying lesion of \geq CIN2 than those who are HPV positive. This confirms that oncogenic HPV DNA testing is a viable option for guiding management of ASC-H as stated in the current version (11/05) of the KP Northern California Clinical Practice Guidelines for Cervical Cancer Screening. In contrast, age stratification showed no statistically significant difference in incidence of lesions of \geq CIN2 and would be less helpful.

D-dimer as a screening test for thrombophilias.

Sharma S, Newman L.

OBJECTIVE: Maternal thrombophilia has been explored as a cause of severe pre-eclampsia, placental abruption, fetal growth restriction, placental thrombosis, and stillbirths. The D-dimer test has been used to detect coagulation abnormalities. The purpose of this study is to determine if the D-dimer test can be successfully used as a screening test for thrombophilias. In specific, we will determine the sensitivity, specificity, positive predictive value, and nega-

tive predictive value of the D-dimer to predict a positive thrombophilic result.

METHODS: Women who experienced the above-mentioned obstetric complications underwent a thrombophilia work-up (including anticardiolipin antibody, antinuclear antibody, lupus anticoagulant, protein C, protein S, homocysteine, factor V Leiden mutation, prothrombin, and antithrombin III) along with a D-dimer test at their postpartum visit. The thrombophilia workup was positive if one or more tests were abnormal. The D-dimer test was considered positive if the level was in the abnormal range (> 500 ng/mL). From the data collected, the sensitivity, specificity, positive predictive value, and negative predictive values were calculated.

RESULTS: Thirty patients completed the thrombophilia workup and D-dimer test. The majority of obstetric complications included stillbirth, severe pre-eclampsia, and abruption. Fourteen (47%) patients had a positive thrombophilia workup. Three (10%) patients had more than one abnormal test. The most common abnormalities were anticardiolipin antibody and protein S deficiency. Eight (27%) patients had abnormal D-dimer tests—four with positive thrombophilia workups and four with negative thrombophilia work-ups. The sensitivity of the D-dimer test was 29% and the specificity was 73%. The positive and negative predictive values were 50% and 55%, respectively.

CONCLUSION: The D-dimer test has inadequate sensitivity for use as a screening test for thrombophilias. Also, the low specificity and low negative predictive value indicate that a negative D-dimer test cannot sufficiently rule out the possibility of a thrombophilia.

Vulvar Paget's disease: Is screening for occult malignancy justified?

Sub-Burgmann B, Kendrick M.

OBJECTIVE: Vulvar Paget's disease is a rare intraepithelial neoplasm with a low propensity to invade. An association of the disease with other malignancies such as breast, colon, bladder, uterus, cervix, and ovary has been reported, leading to the recommendation that practitioners screen these women with mammography, colonoscopy, cystoscopy, endometrial biopsy, and colposcopy. The purpose of

this study was to determine whether patients with vulvar Paget's disease, who have no clinical evidence of other malignancy, are truly at increased risk of harboring an occult internal malignancy at the time of their diagnosis compared to age-matched controls.

METHODS: The study was designed as a retrospective case control. Electronic surgical pathology databases were searched to identify both cases and controls for the time period between 1994-2004. Cases were defined as women whose biopsies revealed vulvar Paget's disease. Controls were age-matched women whose vulvar biopsies revealed benign disease during the same period. Hyperplasia, atypia, intraepithelial neoplasia, and other vulvar malignancies were excluded from the control group. A comprehensive electronic patient database was then searched for each patient to determine whether concurrent (within two months) or subsequent (five years preceding) diagnoses of malignancy were made. The incidence of concurrent and subsequent malignancy was then compared between case and controls. Fisher's exact test was used to compare the rate of malignancy between the two groups.

RESULTS: A total of 55 women with vulvar Paget's disease and 167 women with benign vulvar biopsies were collected. Mean follow-up was five years for both cases and controls. Concurrent malignancy was diagnosed in 3 of 55 women (5.5%) from the Paget's group (one each of cervical, uterine and rectal) compared to no cases from the control group ($p = 0.015$). Patients with a concurrent malignancy in the Paget's group had clinical evidence of their disease. Subsequent malignancy was diagnosed in 4 of 55 women (7.3%) from the Paget's group compared to 10 of 167 (6.0%) from the control group ($p = 0.76$).

CONCLUSIONS: Vulvar Paget's disease is associated with clinically apparent pelvic malignancies. Patients with vulvar Paget's disease, who have no clinical evidence of other malignancy, are not at increased risk of harboring an occult malignancy at the time of their diagnosis compared to age-matched controls. In the absence of signs or symptoms of other malignancy, nonroutine screening does not appear to be warranted. ♦