**Presenting Residents**

**Tania Day, MD**

**Frequency and Impact of Antenatal Contraceptive Counseling**
Tania Day MD, Priya Hirway MS, Lori A. Boardman, MD ScM

**Objective:** To evaluate the impact of having a documented antenatal contraceptive plan on the rate of subsequent rapid repeat pregnancy.

**Methods:** A retrospective chart review of 528 parturients delivering between January and August 2002 was performed. Data obtained from chart review included demographics, number of prenatal visits, provider type, documentation of an antenatal and postpartum contraceptive plan, and pregnancies occurring within 24 months postpartum.

**Results:** The rates of documentation of contraceptive counseling in the antenatal and postpartum periods were 75.4% and 98.1%, respectively. Eighty percent of patients went to at least one postpartum visit. Patients who received antenatal contraceptive counseling were similar with regards to age, marital status, race, insurance status, and rates of antecedent rapid repeat pregnancy to those who did not have documented plans. However, women who received antenatal counseling had fewer prior preterm births (13.8% versus 23.9%, p=0.007) and attended more prenatal visits (median 10 versus 8, p<0.001). Non-English speaking women were less likely to receive antenatal counseling (74.6% versus 85.9%, p=0.003). Although the overall rate of rapid repeat pregnancy (RRP) within 24 months in our cohort was 44%, women with a documented antenatal plan had 54% lower odds of having a rapid repeat pregnancy than those without documentation (40% versus 54%, OR=0.46, CI=0.27-0.78).

**Conclusion:** Although the rate of rapid repeat pregnancy in this cohort was high, women who had documented antenatal plans regarding future contraception were less likely than women with no documented plans to experience a rapid repeat pregnancy.

**Anne Murray, MD**

**Factors Associated with Lack of Paternity Establishment in Infants Born to Adolescent Mothers**
Murray AL, Phipps MG, Weitzen S, Meers A, Billinkoff Z, Rosengard C.

**Objective:** To identify demographic and psychosocial factors associated with paternity establishment in adolescent mothers.

**Methods:** This cohort study included pregnant adolescents (12-19 years old) who presented for their first prenatal visit from March 2002 through February 2005. Data were collected during interviews and medical record chart reviews. The primary outcome, paternity establishment, was determined from the father’s name on the infant’s birth certificate. Independent variables included parents’ race, ethnicity, age, country of birth and variables measuring the strength of the parents’ relationship. Chi-square and Fisher exact tests were used for the analysis.

**Results:** Of the 271 participants with outcome data, 55% had a father’s name recorded on the birth certificate. Paternity establishment was associated with maternal race/ethnicity (Hispanic 69% vs. non-Hispanic black 38% vs. non-Hispanic white 52%, p<0.01), age (37% for 12-15 years, 53% for 16-17 years, and 64% for 18-19 years, p<0.01), and US born compared with non-US born (48% vs 79%, p<0.01). Fathers’ race/ethnicity was also associated with paternity establishment (Hispanic 70% vs. non-Hispanic black 34% vs. white 63%, p<0.01). Fathers who had other children were less likely to establish paternity compared with those with no other children (37% vs. 62%; p<0.01). FOBs whose relationship with the adolescent mother was as a boyfriend or husband were more likely to establish paternity (p<0.01). Fathers who provided labor support were more likely to establish paternity (77% vs. 42% of those for whom labor support was not provided or not
known, p<0.01).

**Conclusion:** Only slightly more than half of the infants born to adolescent mothers in our study had the father’s name recorded on their birth certificate. Multiple demographic and psychosocial issues were associated with lack of paternity establishment. Understanding the influence of these factors is important to developing targeted policies and programs that can help young parents establish paternity for their children.

**Kyle Wohlrab, MD**

The association of neonatal head circumference and severe perineal lacerations sustained during vaginal delivery.

Wohlrab K, Rardin C.

**Objective:** To investigate the relationship between neonatal head circumference and third or fourth degree perineal lacerations suffered during vaginal delivery.

**Methods:** A retrospective chart review of 82 primiparous women undergoing vaginal delivery of singleton infants between June 2004 and March 2005 was conducted. Forty-one cases were selected from ICD-9 codes identifying deliveries complicated by a third or fourth degree lacerations. Forty-one controls were matched for singleton, primiparous women delivering vaginally and not sustaining a third or fourth degree laceration within one week of the estimated gestational age of the matched case. Neonatal weight, length and head circumference were recorded for each case. Type of delivery, episiotomy use, and complications of delivery were also recorded.

**Results:** Women sustaining severe perineal lacerations during childbirth had neonates with a higher percentile mean head circumference (76%) for any given gestational age than those women without third of fourth degree lacerations (66%). Mean percentile fetal weight (52% vs. 44%), operative vaginal delivery (48.9% vs. 12.2%, p=0.001) and episiotomy use (68.3% vs. 46.3%, p=0.001) were also associated more commonly with severe perineal lacerations.

**Conclusion:** This study confirms previously known associations between operative vaginal delivery and episiotomy use with severe perineal lacerations. The study further suggests that an association exists between neonatal head circumference and risk of sustaining severe perineal laceration during vaginal delivery.

**Presenting Fellows**

**Christine Rizk, MD**

Clinical Correlation of MRI and Pathological Specimens in Surgically Treated Breast Cancer Patients

Rizk, Christine; Dizon, Don; Gass, Jennifer; Khalil, Hanan; Steinhoff, Margaret

**Objective:** To review our experience using breast MRI to make surgical decisions and correlate MRI findings with final pathology.

**Methods:** All cases presented to the Multidisciplinary Tumor Board between 1/2001 and 4/2005 were retrospectively reviewed using our Tumor Board Database. Patients presented with an abnormal mammogram and/or a palpable breast mass. Subsequently, they had biopsy proven breast cancer which included ductal, lobular, or mixed cancer and received a pre-operative MRI. This MRI was obtained in women with biopsy proven breast cancer in order to evaluate potential synchronous lesions within the diseased and contralateral breasts. Data on initial presentation, pre-operative evaluation, original surgical plan (pre-MRI), definitive surgery and final pathology was collected into a secure database. Patients that received neoadjuvant chemotherapy were excluded from this study because many had tumor regression and preceded to surgery without a subsequent breast MRI. The sensitivity and specificity of pre-operative MRI was defined using the final pathological specimen as the gold standard.
Correlation was met if tumor volume and final pathology were within one cubic centimeter. Each mammogram and MRI was examined by a board certified radiologist and each pathological specimen was reviewed by a board certified pathologist. The main indications for pre-operative MRI were dense breast tissue on mammography or a positive family history of breast cancer. Additionally, in some cases, the recommendation of the tumor board, based on other clinical factors, also served as an indication to obtain an MRI.

**Results:** Sixty patients were included in this analysis. The median age was 55. To date, twenty-five patients have been comprehensively reviewed. MRI had a 92% sensitivity and 97% specificity when compared to pathological specimens. There were 6 cases with lobular histology, 11 cases were ductal, 6 were mixed, and 2 were CDIS only. Review of correlation by histology showed that this did not alter the sensitivity or specificity as it relates to MRI. Preliminary data suggests that MRI detected 2 cases of contralateral breast disease. Of these cases, all underwent evaluation and both cases were biopsy proven synchronous invasive disease. One patient elected to have bilateral mastectomy with bilateral sentinel node biopsy (SNB). The second patient underwent bilateral lumpectomies with bilateral SNB. After MRI, 1% of patients’ operative treatment was changed to mastectomy.

**Conclusions:** Pre-operative breast MRI is a valuable breast imaging modality. It has a 92% sensitivity and 97% specificity in determining the actual size of disease. Furthermore, this was not related to the type of invasive carcinoma. Pre-operative breast MRI decreased the number of second operations for positive margins and synchronous cancers. It also decreased the number of unnecessary mastectomies. Additional investigations will prove valuable in elucidating the utility of pre-operative breast MRI in helping guide surgical management of breast cancer.

**Vivian Sung, MD**

Impact of Hospital and Surgeon Volumes on Outcomes following Urogynecologic Procedures in the United States

Vivian W. Sung, MD

**Objective:** To estimate the effect of hospital and surgeon volumes on peri-operative outcomes following pelvic reconstructive surgery.

**Methods:** We performed a retrospective cohort study of women who underwent pelvic reconstructive procedures between 1998-2003 utilizing the Nationwide Inpatient Sample. Hospital and surgeon volumes of pelvic reconstructive procedures performed were derived by counting the number of cases performed by each hospital and surgeon in the data set and ranking these in order of increasing mean annual volume. Three volume groups were defined by selecting whole-number cutoffs for mean volume that most closely sorted patients into 3 groups of equal size (tertiles). Outcomes included in-hospital mortality, complications based on secondary diagnosis codes, and non-routine discharges. Generalized estimation equations were obtained to estimate relative risks and 95% CI, adjusting for patient age, race, comorbidity status, income, number of procedures, hospital teaching status, location, region, and clustering. All analyses were performed using SAS 8.2 and SUDAAN 9.0. Women who underwent pelvic reconstructive procedures were included and identified using ICD-9 procedure-diagnosis code combinations. There were 310,759 women in our study population who underwent pelvic reconstructive procedures at 2,986 hospitals between 1998-2003.

**Results:** Women who had procedures at low-volume hospitals were 2.75 (95% CI 2.33, 3.16) times more likely to die and 1.63 (95% CI 1.44, 1.83) times more likely to have a non-routine discharge, compared to those at high-volume hospitals. Even in high-volume hospitals, women who had procedures by low-volume surgeons were 1.39 (95% CI 1.21, 1.57) times more likely to suffer complications and a 1.95 (95% CI 1.43, 2.48) times more likely to have a non-routine discharge compared to those with high-volume surgeons.

**Conclusions:** Differences in hospital and surgeon volumes of pelvic reconstructive procedures may contribute to variations in mortality and morbidity risks. Reduction in these
variations is likely to lead to improved care of women undergoing surgery for pelvic floor disorders.