**Vitamin D Insufficiency Strongly Associated With Obesity**

*Vitamin D Status and Its Relationship to Body Fat, Final Height, and Peak Bone Mass in Young Women.*

Kremer R, Campbell PP, et al:

*J Clin Endocrinol Metab;* 94 (January): 67-73

| Vitamin D insufficiency in young adults is epidemic and is not associated with racial or ethnic variation. |

**Objective:** To determine the relationship of Vitamin D levels with anthropometric measurements at time of peak bone mass.

**Design/Methods:** This was a cross-sectional study involving 90 post-pubertal females between the ages of 16 and 22 years who had bone and fat measurements performed using DEXA scan and computerized tomography, as well as biochemical determinations of 25-hydroxyvitamin D2 and D3, and parathormone assays. This was a multi-ethnic and multi-racial population. The results of this study are eye opening.

**Results:** There was significant positive correlation between height and 25OHD levels, and conversely significant negative correlations between vitamin D levels, weight, and body mass index irrespective of ethnic background. There was a significant inverse correlation between 25-hydroxyvitamin D and parathormone. Parathormone levels were higher in the vitamin D-insufficient rather than the vitamin D-sufficient group.

**Conclusions:** Vitamin D insufficiency is not associated with ethnic or racial variation. Vitamin D insufficiency is associated with increased body fat and decreased height, but not changes in peak bone mass.

**Reviewer’s Comments:** Strangely, this study did not demonstrate a correlation between vitamin D status and bone mass determination. Previous studies of adolescents have been inconsistent in this regard. What this study does show is that vitamin D insufficiency is extremely common in young women—59% in this population—is correlated with obesity, likewise very common in this population, as well as height. Here is a study in a sun-rich area of the United States showing a high prevalence of adolescent vitamin D insufficiency, of which body fat may be a contributor, or perhaps vitamin D insufficiency is a risk factor for obesity. Hmmmm....

**Additional Keywords:** Anthropometric Measurements

**print tag:** () Refer to original journal article.
Laparoscopic-Assisted Myomectomy Valid, Safe Alternative to Laparoscopy

Laparoscopy vs. Laparoscopically Assisted Myomectomy in the Management of Uterine Myomas: A Prospective Study.
Prapas Y, Kalogiannidis I, Prapas N:
Am J Obstet Gynecol; 200 (February): 144.e1-144.e6

No laparoscopic instrument has been invented that carries the sensitivity of the human fingertip. Mini-laparotomy has the advantage over laparoscopic myomectomy of inserting a finger into the operative site to feel intramural fibroids.

Objective: To compare 2 minimally invasive surgical techniques for the management of uterine myomas.

Design: Prospective cohort study.

Participants: 116 subjects either undergoing laparoscopic-assisted myomectomy or laparoscopic myomectomy.

Participants/Methods: From March 1997 through December 2007, premenopausal women aged 42 years who had symptomatic intramural or subserosal myomas were included in the study. The number of myomas ranged from 1 to 3 in each subject, with a diameter ranging from 30 to 90 mm. Patient demographics and other relevant data and history were recorded. Short-term outcomes included a postoperative anemia, need for transfusion, postoperative fever, bowel peristaltic activity, and postoperative ileus. The investigators also addressed early postoperative complications, duration of hospital stay, and time to return to full activity. Laparoscopic myomectomy was performed using a 10-mm port for video laparoscope with 2 ancillary ports of 5 mm, and a third ancillary suprapubic midline port of 10 mm, through which the electrosurgical morcellator was inserted. For laparoscopic-assisted myomectomy, a 10-mm intraumbilical port was used with a 5-mm suprapubic midline trocar near the location of the visualized uterine myoma. A tenaculum was then introduced through the 5-mm port, and the surgical procedure was continued through a 3- to 4-cm in length mini-laparotomy incision. Cold knife and finger manipulation were used to perform the myomectomy through the mini-laparotomy.

Results: 76 patients were treated with the laparoscopic-assisted myomectomy and 40 patients underwent laparoscopic myomectomy. A single case of laparoscopic-assisted myomectomy was converted to conventional laparotomy and 1 patient received a transfusion. There were 2 cases of postoperative ileus, 1 in each group. There were no differences in intraoperative or postoperative complications between the groups.

Conclusions: Laparoscopic-assisted myomectomy is safe and has a lower level of surgical difficulty than laparoscopic myomectomy. Perioperative complications are similar to laparoscopy.

Reviewer’s Comments: Laparoscopic-assisted myomectomy has the advantage of being able to insert a finger into the abdominal cavity and feel intramural fibroids. This may be the most significant advantage of laparoscopic-assisted myomectomy over using the laparoscope alone.

Additional Keywords: Surgical Management

print tag: () Refer to original journal article.
Postmenopausal Hormone Tx More Effective When Begun Earlier vs Later

The Cost-Effectiveness of Hormone Therapy in Younger and Older Postmenopausal Women.

Salpeter SR, Buckley NS, et al:
Am J Med; 122 (January): 42-52

Computer modeling suggests hormone therapy started at the time of menopause is cost effective.

**Objective:** To evaluate health and economic outcomes of hormone therapy in younger and older postmenopausal women.

**Design/Methods:** This was a simulation model to evaluate cost effectiveness of hormone therapy in younger (50 years) and older (65 years) postmenopausal women utilizing data sources in the extant literature. The 2 age groups were given or not given hormone therapy and then followed over their lifetimes. Mathematically derived quality-adjusted life-years (QALYs) and incremental cost per QALY were computed for all. All assumptions and decision analyses were simulated based on data from relevant literature.

**Results:** Hormone therapy for 15 years in the younger cohort resulted in a gain of 1.4 non-QALYs and an incremental cost of $2438 per QALY gained compared with the no hormone therapy group. In the older cohort, treatment for 15 years resulted in a net gain of 0.11 QALYs; however, a loss of QALYs was seen in the first 9 years, with a cost of $27,953 per QALY gained.

**Conclusions:** Hormone therapy over a long duration in younger postmenopausal women increases quality-adjusted life-years and is cost effective. Hormone therapy begun in later years results in an initial loss of quality-adjusted life before a net gain is appreciated.

**Reviewer's Comments:** This complicated statistical article based on modeling and simulation suggests a long-term benefit for hormone therapy in postmenopausal women who begin at a younger age. In these women, a modest increase in life-years is attained, and a significant increase in quality of life years is realized. If you buy the authors’ assumptions, the conclusions make sense.

**Additional Keywords:** Outcomes

**print tag:** () Refer to original journal article.
Blood Loss at Vaginal Hysterectomy Reduced by Vasopressin

Cervical Vasopressin Compared With No Premedication and Blood Loss During Vaginal Hysterectomy: A Randomized Controlled Trial.

Ascher-Walsh CJ, Capes T, et al:
Obstet Gynecol; 113 (February): 313-318

Blood loss is decreased by the use of intracervical vasopressin at the time of vaginal hysterectomy, but these patients have a significant increase in postoperative morphine usage.

Objective: To compare outcomes using intracervical vasopressin or no intracervical injection at the time of vaginal hysterectomy.

Design: Randomized prospective clinical trial.

Participants: 58 women undergoing vaginal hysterectomy.

Methods: Subjects who were about to undergo vaginal hysterectomy were recruited from January 2004 through January 2005. Patients were randomly assigned by a computer-generated randomized scheme to either receive vasopressin injection intracervically before incision or no preoperative intracervical injection. Patients were enrolled based upon any indication for vaginal hysterectomy and were excluded if there were significant medical conditions including severe liver disease, congestive heart failure, documented coronary disease, impaired renal function, or history of recurrent migraines or asthma. A total of 58 women were enrolled and 29 were assigned to each arm of the study. Those patients in the vasopressin arm received an injection of dilute vasopressin with 20 units per 50 mL of normal saline. The vaginal hysterectomy was supervised by 2 senior surgeons using the same standard steps for this procedure. All important steps of the vaginal hysterectomy procedure were timed, including entering the posterior cul-de-sac, removal of the uterus, and reattachment of cardinal ligaments to the vaginal cuff. Perioperative prophylactic antibiotics were used, estimated blood loss was determined, and patients were given the same protocol for postoperative pain medication management. The primary outcome of the study was considered to be blood loss. The investigators chose 150 mL as a conservative difference in blood loss between the 2 groups, with a standard deviation of 200 mL.

Results: Demographics of the 2 groups were similar in regard to age, parity, and ethnicity. Surgical indications and uterine size were similar between the 2 groups. Blood loss in the vasopressin group was an average of 145.3 mL compared with 266.4 mL for the control group. There was an increase of 10.4 mm of mercury in mean blood pressure at 5 minutes after injection with the vasopressin group as compared with 2.5 mm for the control group. Patients in the vasopressin group had a higher utilization of patient-controlled analgesia postoperatively as compared to the group that did not use vasopressin.

Conclusions: Blood loss is decreased by the use of intracervical vasopressin at the time of vaginal hysterectomy. Patients receiving vasopressin have a significant increase in postoperative morphine usage.

Reviewer's Comments: There is an obvious trade-off with the use of cervical vasopressin injection. In an otherwise healthy person, the additional 100 cc of blood loss may be less significant than the increased use of postoperative analgesia.

Additional Keywords: Blood Loss

print tag: () Refer to original journal article.
Pelvic Pain Intensity Scales Are Comparable


Fauconnier A, Dallongeville E, et al:
Obstet Gynecol; 113 (February): 260-269

Clinicians generally develop their own way of determining the intensity of pain in their patients. This is usually a combination of direct observation of the patient, specific questions, and physical findings.

Objectives: To study and compare methods of pelvic pain intensity measurement in gynecologic emergency units.

Design: Prospective cohort study.

Participants: 177 consecutive females presenting in a gynecologic emergency unit.

Methods: Patients aged 13 years who presented with or without acute pelvic pain in a gynecologic emergency unit were subjected to 5 different scales of measuring pelvic pain intensity. Patients were excluded who had pain from other locations, pregnancy of 20 weeks’ gestation, and pathology that may be causing severe chronic pelvic pain. Three self-reported scales were used for all patients, including a visual analog scale, a numerical rating scale, and a 5-level verbal rating scale. In addition to these 3 self-reported scales, the investigators used a behavioral scale index that included vocal complaints, facial expression, movement, and posturing. The separate behavioral index that was specifically developed for this study included pain-related behavior categorized by 8 different criteria. The relevant diagnosis was considered to be the diagnosis determined at the time of patient discharge. The predictive value of the various pain scoring methods was determined according to several factors that are thought to be associated with pain intensity, including the pathology of the final diagnosis, the anatomic location of the disease, the various autonomic pathways that could be involved, and the mechanism of pain. The investigators also considered the prognosis of the disease and other demographic characteristics in order to make the comparisons between the 5 different methods.

Results: Among the 177 patients who were evaluated, missing data rates were greater for the behavioral scales as compared to the self-reported scales. The pain scores were lower for the behavioral scales than those that were self-reported. Regardless of what method of pain measurement used, the variation of pain intensity according to the pain physiology or the pain location was similar. All 5 methods were sensitive to the physiology of the pain, the location of the pain, the severity of illness, and the observation that pain was the main complaint. The patient's age, occupational categories, parity, or geographic origins did not affect any of the methods of pain intensity measurement.

Conclusions: Adequate measurement of pelvic pain intensity can be accomplished by use of all 5 methods employed in this study. The self-reported scales are easier to use as compared to the behavioral indices.

Reviewer's Comments: The intensity of pain is a hard thing to quantitate. Pain scales can be subjective, complex, and difficult to interpret.
**Coenzyme A Reductase Inhibitors (Statins) Are Good Adjunctive Tx for PCOS**

*The Effect of Atorvastatin in Patient With Polycystic Ovary Syndrome: A Randomized Double-Blind Placebo-Controlled Study.*

Sathyapalan T, Kilpatrick ES, et al:  
*J Clin Endocrinol Metab*; 94 (January): 103-108

| Statins may improve PCOS and reduce future CVD morbidity. |

**Objective:** To study the effect of atorvastatin on inflammatory markers, insulin resistance, and hyperandrogenemia in patients with polycystic ovary syndrome (PCOS).

**Design/Methods:** 40 patients fulfilling the criteria for PCOS with hyperandrogenemia and increased insulin resistance were randomized in this double-blind placebo-controlled study to receive either 20 mg of atorvastatin or placebo daily for 12 weeks. Appropriate biochemical markers were obtained at baseline and at the conclusion of the study.

**Results:** Following 12 weeks of atorvastatin therapy, there was a significant reduction in total cholesterol, LDL-C, triglycerides, high-sensitivity C-reactive protein, and free testosterone compared with the placebo group. In addition, insulin resistance was significantly lower in the statin-treated group, which correlated with the reduction in triglycerides and free androgen index.

**Conclusions:** A short-term course of atorvastatin was effective in reducing biochemical markers of inflammation and hyperandrogenemia while improving lipid panels in women with PCOS.

**Reviewer’s Comments:** This was a nice, clean 12-week study that showed the beneficial effects of atorvastatin (Lipitor) on not only lipid panels, but also biochemical markers of inflammation, insulin resistance, and free testosterone in women with PCOS. This article provides further support that statins may have a role in the management of PCOS, particularly in ameliorating hyperandrogenemia and dyslipidemia, and perhaps protecting against future cardiovascular morbidity and mortality.

**Additional Keywords:** PCOS

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Lactation Decreases Risk of Myocardial Infarction

Duration of Lactation and Incidence of Myocardial Infarction in Middle to Late Adulthood.

Stuebe AM, Michels KB, et al; Am J Obstet Gynecol; 200 (February): 138.e1-138.e8

The changes in glucose and lipid metabolism associated with lactation may produce long lasting effects with subsequent decrease in cardiovascular risks.

Objective: To study the relationship between lactation and myocardial infarction.

Design: Prospective cohort study.

Participants: 121,700 women involved in the Nurses’ Health Study.

Methods: The Nurses’ Health Study has followed patients at 2-year intervals since 1976 by completing questionnaires regarding health-related topics and medical diagnoses. Lactation history was assessed in 1986, at which time the youngest women in the cohort were age 40 years. There were only 75 births after 1986. These investigators assessed the incidence of non-fatal myocardial infarction and mortality because of coronary heart disease over the years 1986 to 2002, and then calculated the relative risk of myocardial infarction relative to the lactation history. The investigators stratified lactation history into 6 groups: none; >0 to 3 months; >3 to 6 months; >6 to 11 months; >11 to 23 months; and >23 months.

Results: Lactation history was reported by 89,326 parous women. Sixty-three percent of these women had not breast fed. There were 2540 incident cases of myocardial infarction or death because of coronary heart disease among the cohort. For those women reporting a >23-month history of lifetime lactation, the hazard ratio for coronary heart disease was 0.63 with a 95% confidence interval of 0.51 to 0.77 as compared with women who had never breastfed. With the addition of coronary and lifestyle risk factors, the hazard ratio was 0.77 for women with >23 months of lifetime lactation.

Conclusions: There is a significant inverse relationship for myocardial risks associated with >2 years of lifetime lactation.

Reviewer's Comments: Based on this study, there is a possibility that lactation may be a modifiable risk factor that can reduce cardiac risk in women.

Additional Keywords: Myocardial Infarction

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**Chlamydia trachomatis Infection Major Contributor to Tubal Infertility**

*Chlamydia trachomatis Infection in Women With Secondary Infertility.*

Malik A, Jain S, et al:

*Fertil Steril;* 91 (January): 91-95

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Past chlamydial infection is strongly associated with secondary infertility, and current infection is commonly present in women with secondary infertility.

**Objective:** To prospectively assess the role of *Chlamydia trachomatis* infection in secondary infertility.

**Design/Methods:** This was a prospective study including 40 women with secondary infertility and 30 healthy term pregnant women of similar age. Past *Chlamydia trachomatis* infection was determined by ELISA assay of Chlamydia IgG antibodies. Present infection was detected by positive endocervical swabs and ELISA assay to detect Chlamydia antigen. In all women with secondary infertility, hysterosalpingography was performed to assess tubal patency.

**Results:** IgG antibodies to chlamydia were present in 55.0% of women with secondary infertility compared with 5.5% of the controls. Tubal occlusion occurred in two thirds of cases positive for chlamydial antibody, and one third of patients with a past history of chlamydial infection as judged by antibody testing were found to have an active present chlamydial infection.

**Conclusions:** Past chlamydial infection is strongly associated with secondary infertility, and current infection is commonly present in these women with secondary infertility as well.

**Reviewer's Comments:** This article points out the association of past *Chlamydia trachomatis* infection with tubal disease and infertility. It also emphasizes the recurrent nature of chlamydial infections and the difficulty of detecting chlamydia early, prior to its ability to induce tubal dysfunction and occlusion. It's a bad, frequently silent infection that is a significant contributor to reproductive agony.

**Additional Keywords:** Tubal Infertility

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Amount of Methadone Used in Pregnancy Directly Relates to Duration of NAS Tx

High-Dose Methadone in Pregnant Women and its Effect on Duration of Neonatal Abstinence Syndrome.

Lim S, Prasad MR, et al:
Am J Obstet Gynecol; 200 (January): 70.e1-70.e5

The duration of treatment for NAS is directly related to the amount of methadone used by the mother during pregnancy.

**Objective:** To determine if there is a relationship between the dose of maternal methadone used and subsequent duration of neonatal abstinence syndrome (NAS).

**Design/Methods:** This was a retrospective cohort study done over a 5.5-year period. Pregnant patients using methadone therapy were evaluated. The amount of methadone used was quantitated for each patient as well as the indication for methadone usage. Patients were divided according to the amount of methadone used. There were 3 groups evaluated: 70 mg a day, 71 to 139 mg a day, and 140 mg a day. Each infant was subsequently evaluated for NAS using a scoring system. Utilizing the NAS scoring system, infants were subsequently treated medically. Medical therapy for the infants included phenobarbital and/or methadone. Infants that were medically treated were subsequently weaned from the specific medication and then discharged either 1 or 2 days after discontinuing the medication. The time that the infant underwent treatment for withdrawal from maternal methadone was calculated for each infant.

**Results:** There were 66 mother-infant pairs included. Demographics of the 3 groups were no different in regard to age, hepatitis C status, ethnicity, reason for methadone use, and results of urine toxicology screen. Overall, 85% of patients were using methadone for opiate addiction while 15% were using methadone for chronic pain. Birth weight, gestational age at delivery, the cesarean section rate, rate of preterm deliveries, 5-minute Apgar score of <7, and meconium-stained amniotic fluid were all no different between the 3 groups. For the entire group, the mean methadone dose at delivery was 97 mg. For the 70-mg group, it was 41 mg; for the 71- to 139-mg group, it was 107 mg; and for the 140-mg group, it was 159 mg. In the low-dose methadone group, 65% of infants were treated for NAS compared to 73% in the intermediate group and 100% in the high-dose group. The rate of treatment between the low-dose group and the intermediate group was no different; however, there was an increased rate of treatment when comparing the high-dose group to the low-dose group. When evaluating the length of treatment for NAS, for every 5.5-mg increase in methadone use in the mother, there was 1 additional day of treatment for NAS for the neonate.

**Conclusions:** There is a direct relationship between increasing dosage of maternal methadone use and subsequent duration of treatment of NAS.

**Reviewer's Comments:** One limitation of this study was the small sample size. Although, the main strength of this study was the fact that not only was the incidence of NAS determined, but also the duration of treatment was presented. However, it appears from this study that reducing methadone usage from any level would help in decreasing the duration of treatment for NAS.

**Additional Keywords:** NAS

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Risk of Mortality in Monoamniotic Twins Appears to Occur Throughout Pregnancy

Perinatal Outcome of Monoamniotic Twin Pregnancies.

Hack KE, Derks JB, et al:

Obstet Gynecol; 113 (February): 353-360

There is a significant rate of fetal mortality with monoamniotic twins and this continues to occur even after 32 weeks' gestation.

Objective: To evaluate perinatal mortality and neonatal morbidity in monoamniotic twin gestations according to specific gestational ages.

Design/Methods: This was a retrospective study done over a 10-year period. Information was gathered from 10 referral centers on monoamniotic twin gestations. All monoamniotic twins had regular sonographic assessment of fetal growth, amniotic fluid volume, and Doppler interrogation of the umbilical artery. Stillbirth was an intrauterine death occurring 20 weeks' gestation. Perinatal mortality included stillbirths and neonatal deaths that were 28 days from delivery. Congenital heart abnormalities were noted. Cranial sonography was also used in order to evaluate any cerebral injury. The primary outcome evaluated was perinatal mortality.

Results: There were 98 monoamniotic twin gestations evaluated. Six (6%) were found to have twin-twin transfusion syndrome. Six pregnancies resulted in the death of both fetuses prior to 20 weeks' gestation. In 2 of the 6, mortality was thought to be secondary to cord entanglement, and for the other 4, the cause of death was not known. There were a total of 22 intrauterine fetal demises; 8 pregnancies had both twins expire, while 6 only had 1 twin expire. Three of those pregnancies in which there was 1 single fetal death had a subsequent neonatal death of the second twin. In all cases, this was related to cerebral artery infarction. In the remaining 3 co-twins death survivors, there was no cerebral injury noted. There were 12 neonatal deaths, of which 10 were single deaths while the other 2 were twins from the same pregnancy. When you consider the time from 20 weeks' gestation through 28 days of life, the perinatal mortality rate was 19%. If those fetuses and infants with lethal anomalies were excluded, then the overall perinatal mortality rate was 17%. With respect to mode of delivery, 40% of infants were delivered vaginally, and half of those were either pre-viable or were an unrecognized monoamniotic twin gestation. With respect to perinatal outcome, 87 of 164 liveborn infants (53%) required admission to the NICU. The median length of NICU stay was 6 days. Seven infants were found to have congenital heart abnormalities for a rate of 4%. Neonatal cerebral injury was noted in 5%.

Conclusions: Perinatal mortality in monoamniotic twins has decreased in the past several decades, although it continues to be high and appears to occur throughout pregnancy.

Reviewer's Comments: It is difficult to predict fetal deaths in monoamniotic twins and it is also apparent that these may occur throughout pregnancy. In this study, 4 deaths occurred after 32 weeks' gestation, accounting for 4% of pregnancies. There continues to be controversy regarding optimal management and timing of delivery.

Additional Keywords: Perinatal Outcome

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Sonographic Markers for Growth Restriction, Low PAPP-A Predict Poor Outcomes

Second-Trimester Fetal Growth as a Predictor of Poor Obstetric and Neonatal Outcome in Patients With Low First-Trimester Serum Pregnancy-Associated Plasma Protein-A and a Euploid Fetus.

Fox NS, Shalom D, Chasen ST:
Ultrasound Obstet Gynecol; 33 (January): 34-38

Among patients with low first-trimester PAPP-A and a euploid fetus, fetal growth in the second trimester can predict poor obstetric and neonatal outcome.

**Objective:** To determine whether a second-trimester sonogram assessment of fetal growth could predict a poor perinatal outcome in a euploid pregnancy with a decreased level of PAPP-A.

**Design/Methods:** This was a retrospective study done over a 4.5-year period. Singleton euploid pregnancies without malformations with a PAPP-A level <5th percentile were evaluated. All patients had a first-trimester sonographic evaluation and an evaluation between 18 to 24 weeks’ gestation. Three sonographic findings were used at the second-trimester sonogram to identify fetal growth restriction. These included an estimated fetal weight of <25th percentile, a sonographic estimated gestational age <7 days from the previously determined estimated gestational age, and a head circumference/abdominal circumference (HC/AC) ratio >90th percentile for a specific gestational age. Two groups of patients were evaluated; those that had a decreased PAPP-A level and at least 1 of the second-trimester sonographic findings for growth restriction. The second group consisted of those with decreased PAPP-A levels, but had no second-trimester sonographic findings for fetal growth restriction.

**Results:** There were 239 patients with a PAPP-A level <5th percentile. Twenty-five of these (10.5%) had at least 1 sonographic marker at the second-trimester ultrasound for fetal growth restriction. Three had the isolated 7-day discrepancy between ultrasound gestational age and established gestational age; 8 were found to have only HC/AC asymmetry; and 2 were found to have only an estimated fetal weight <25th percentile. The other 12 had a combination of sonographic markers. When comparing those patients with low serum PAPP-A and normal growth parameters to those with low PAPP-A levels and evidence of fetal growth restriction, those with abnormal second-trimester sonogram findings had an increased rate of preterm delivery, gestational hypertension, preeclampsia, small for gestational age (SGA), low birth weight, low 1-minute Apgar scores, increased admission to the NICU, and fetal and/or neonatal death.

**Conclusions:** In patients whose pregnancies are complicated by decreased first-trimester levels of PAPP-A and a euploid fetus, fetal growth assessment in the second trimester can assist in predicting poor perinatal and neonatal outcomes.

**Reviewer’s Comments:** With the increased use of first-trimester screening, it is important to be aware of low PAPP-A levels, especially in a euploid fetus. In this fetus, particular attention should be paid toward sonographic markers for growth restriction in the second trimester. Of patients that had a low PAPP-A level as well as second-trimester markers for fetal growth restriction, approximately 39% of fetuses were considered SGA and 21.7% were delivered with a birth weight <5th percentile. This was accompanied also by an increased risk of developing preeclampsia.

**Additional Keywords:** PAPP-A

(print tag: () Refer to original journal article.)
Prenatal Detection Rate, Survival Rate for Infants With Gastroschisis Very High

*Prevalence, Prenatal Diagnosis and Survival of Gastroschisis.*

Fillingham A, Rankin J:

_Prenat Diagn; 28 (December): 1232-1237_

There is a very high success of diagnosing gastroschisis prenatally. The survival rate of those infants born with gastroschisis is >90%.

**Objective:** To determine the prevalence of gastroschisis and associated anomalies, the ability to prenatally diagnose the condition, and the subsequent survival of infants with gastroschisis.

**Design/Methods:** This was a retrospective study done over a 10-year period. During this time, a perinatal database was used to identify pregnancies complicated by gastroschisis. The outcomes evaluated included prevalence of gastroschisis, the ability to prenatally diagnose gastroschisis, as well as maternal age-specific prevalence and subsequent survival. Total prevalence was the number of pregnancies affected by gastroschisis that resulted either in pregnancy termination, stillbirth, or live birth per 10,000 births. A live birth prevalence was the number of pregnancies with gastroschisis that subsequently had a live birth per 10,000 live births. Outcomes were also stratified by year of delivery.

**Results:** During a 10-year span, 143 cases of gastroschisis were identified. In total, 133 (93%) were isolated, while 10 had other anomalies. Five of 10 with gastroschisis with other anomalies had >1 associated abnormality. One case of gastroschisis had Klinefelter's syndrome and all the others had normal karyotypes. Overall, the total prevalence of gastroschisis was 4.28/10,000 births. In 1997, the total prevalence was 3.02 compared to 5.21 in 2006. Although an increase, this was not statistically significant. Live birth prevalence overall was 4.21/10,000 births with a live birth prevalence in 1997 of 3.04 compared to 4.62 in 2006; again, although increased, not statistically significant. In those cases of isolated gastroschisis, the mean maternal age at time of delivery was 21.1 years. Age-specific live birth prevalence rate was 18.6 if the maternal age was <20 years, 6.55 if the maternal age was between 20 and 24 years, 1.87 if between 25 and 29 years, and 0.66 if between 30 and 34 years. For non-isolated cases of gastroschisis, the mean maternal age was 22.4 years. With respect to survival, of the 133 cases of isolated gastroschisis, 2 ended in stillbirths, 1 was a pregnancy termination, but 130 (97.7%) resulted in live births. Of the 10 cases of non-isolated gastroschisis, 2 had pregnancy terminations and there were 8 livebirths. With respect to antenatal diagnosis of gastroschisis, prenatal diagnosis was made in 96.5% of cases.

**Conclusions:** There appears to be a trend toward an increase in gastroschisis, especially in young patients. There is a very high success of diagnosing gastroschisis prenatally. The survival rate of those infants born with gastroschisis is >90%.

**Reviewer’s Comments:** It is interesting that the prevalence of gastroschisis appears to be highest in women aged <20 years. The reason for this is unclear. The prenatal detection rate for gastroschisis is also very high as is the survival rate. This information should be useful in counseling patients who are diagnosed with an infant with gastroschisis.

**print tag:** Refer to original journal article.
Clomiphene Citrate Is Not Teratogenic for Breast Cancer


Orgeas CC, Sanner K, et al:

*Am J Obstet Gynecol*; 200 (January): 72.e1-72.e7

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**Overall, hormonal therapy to treat infertility is not associated with an increased risk in breast cancer incidence.**

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**Objective:** To assess the incidence of breast cancer with respect to infertility treatment and etiology of infertility.

**Design/Participants:** Historical, prospective cohort study comprising, initially, 2774 women attending infertility clinics between 1961 and 1976 in Uppsala, Stockholm, and Goteborg. There were ultimately 1135 evaluable women treated for infertility with complete data on reproductive and drug exposure, development of breast cancer, parity, and other variables.

**Methods:** Women were classified as users of clomiphene citrate or gonadotropins, or a combination of both, and etiology of their infertility was categorized as ovulatory, mechanical, or other, which also included idiopathc.

**Results:** Of 1135 women, there were 54 who developed breast cancer during the study period, consistent with expected results. However, high-dose clomiphene citrate users had an almost 2-fold increased risk of developing cancer, and this association was more pronounced among women referred for non-ovulatory factors.

**Conclusions:** Overall, infertility treatment with gonadotropins and clomiphene citrate were not associated with an increased risk for development of breast cancer. A subgroup of women treated with high doses of clomiphene citrate for non-ovulatory causes of infertility did have an elevated risk for breast cancer.

**Reviewer’s Comments:** Although this was a prospective cohort study, it was really historical in nature looking back at an infertility population in whom some subsequently developed breast cancer. The authors find no overall relationship between gonadotropin or clomiphene citrate therapy on the risk of breast cancer, with the exception that women with a non-ovulatory disorder treated with high doses of clomiphene citrate statistically had a significantly increased risk of developing breast cancer. Interesting.

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Whole-Body Hyperthermia + Chemo Not Ready for Prime Time

Whole-Body Hyperthermia (WBH) in Combination With Carboplatin in Patients With Recurrent Ovarian Cancer - a Phase II Study.

Atmaca A, Al-Batran S-E, et al:
Gynecol Oncol; 112 (February): 384-388

Whole-body hyperthermia and carboplatin is associated with significant cardiac and hematologic toxicity.

Objective: To investigate toxicity and efficacy of whole-body hyperthermia in combination with carboplatin.

Participants/Methods: 47 patients with epithelial ovarian cancer were enrolled in the study. They had previously undergone at least 1 palliative treatment of chemotherapy. Of these 47 patients, 24 were classified as platinum refractory or resistant, and 16 as platinum sensitive. Patients received 6 cycles of carboplatin after a target temperature of 41.8°C was reached and administered over 20 minutes.

Results: Significant severe hematologic toxicity was experienced by more than half the total, and cardiac complications occurred in nearly half. Median overall survival and progression-free survival were 61.5 and 29.0 weeks, respectively.

Conclusions: Whole-body hyperthermia in combination with carboplatin is an active salvage treatment option with good response rates in patients with advanced ovarian cancer, yet the significant hematologic and cardiac toxicity renders this regimen inappropriate for palliative therapy. There is no conclusive evidence based on these and other data that whole-body hyperthermia has any advantage beyond chemotherapy alone.

Reviewer's Comments: This was a phase II study (ie, not randomized) that looked at whole-body hyperthermia in conjunction with carboplatin therapy in patients with recurrent ovarian cancer. The toxicity of this combination is high and particularly, in patients with platinum refractory or resistant disease, it is a therapy with too many complications to be appropriate as a palliative regimen.

Additional Keywords: Whole-Body Hyperthermia

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AMH Assay Is Accurate Measure of Ovarian Reserve

Clinical Uses of Anti-Müllerian Hormone Assays: Pitfalls and Promises.
Streuli I, Fraisse T, et al:
Fertil Steril; 91 (January): 226-230

| Anti-Müllerian hormone assay is a valid measure of ovarian reserve at any time during the menstrual cycle. |

**Objective:** To determine if anti-Müllerian hormone (AMH) levels fluctuate in relation to menstrual cycle phase or from differences between various immunoassays available.

**Design/Methods:** Prospective trial conducted at university hospitals, including 168 blood samples obtained from 3 different populations. Samples came from 95 women and AMH was measured using a Diagnostic Systems Laboratory kit, and the Beckman Coulter Immunotech kit. Additionally, serial samples were performed at set intervals from the luteinizing hormone (LH) surge in a population of 10 volunteers.

**Results:** There was a linear relationship between the 2 methods tested with high correlation. When individual AMH measures were longitudinally analyzed in relation to LH surge, a slight but significant decrease was observed post-ovulation.

**Conclusions:** Fluctuations in levels of AMH rather than kit differences or inaccuracies are related to small changes in levels following ovulation, but it is not clinically relevant, making AMH measurements a valid method of assessing ovarian reserve.

**Reviewer’s Comments:** The objective of this study was very narrow really: to compare 2 immunoassay kits for accuracy and interchangeability. The main message, however, from a clinical standpoint is that AMH levels are stable under various influences such as hormonal contraception, menstrual cycle, and pregnancy. Measurements can be made any time to evaluate ovarian reserve. As this article points out, fluctuations after ovulation are slight but are smaller than inter-cycle variability and, thus, AMH remains a valid measure of ovarian reserve.

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Obesity, Endometrial Polyps Are Associated

Endometrial Polyps and Associated Factors in Danish Women Aged 36-74 Years.

Dreisler E, Sorenson SS, Lose G:
Am J Obstet Gynecol; 200 (February): 147.e1-147.e6

Although endometrial polyps are common, occurring in approximately 8% of the population, it is rare that an endometrial polyp is the originating source of endometrial cancer.

Objective: To determine factors contributing to the pathogenesis of endometrial polyps.

Design: Case-control study.

Participants: 140 women with endometrial polyps and 367 controls without endometrial polyps.

Methods: For a 14-month period (September 1, 2004, through November 30, 2005), women aged 36 to 74 years were recruited to participate in a population-based study of endometrial polyps. Women who were suspected of having an endometrial polyp on saline infusion sonohysterography underwent operative hysteroscopy, and presence of polyps was confirmed by histopathologic examination. Controls (n=367) were identified who did not have intrauterine disease. All participants in the study answered an 85-item questionnaire, which was specifically developed for the study that included possible associations with formation of polyps. Factors that were considered were age, menopausal status, body mass index, parity, gravidity, miscarriage, age at menopause, intermenstrual bleeding, menorrhagia, postmenopausal bleeding, diabetes, hypertension, thyroid disease, presence of cervical polyps, intestinal polyps, nose polyps, and polyps of the urinary bladder. In addition, investigators collected information about oral contraceptive use and hormone therapy use.

Results: There was no statistically significant difference in the 2 groups in parity, gravidity, number of miscarriages, or having ever experienced a miscarriage. In addition, there were no differences between cases and controls in smoking, alcohol consumption, education, and work. There were significantly more women who were obese in the endometrial polyp group than in the control group. In addition, hypertension, current use of hormone therapy, and ever use of hormone therapy were statistically more frequent in the postmenopausal endometrial polyp group than in controls. A total of 137 women were diagnosed with benign endometrial polyps, 3 had a polyp with premalignant disease, and another 3 women had a benign polyp with premalignant or malignant disease in the adjacent endometrium. One case had a polypoid lesion growing endometrial carcinoma.

Conclusions: There is an association between endometrial polyps and use of hormone therapy and being overweight. Use of oral contraceptives appears to have a protective effect against endometrial polyps.

Reviewer's Comments: Exogenous hormone therapy and overweight are both conditions that may lead to chronic unopposed estrogen. Oral contraceptives have a predictable counter effect on endometrial proliferation and polyp formation.

Additional Keywords: Obesity & Hormone Replacement Therapy

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Low-Trauma Fractures Are Associated With Subsequent Mortality Risks

Mortality Risk Associated With Low-Trauma Osteoporotic Fracture and Subsequent Fracture in Men and Women.

Bliuc D, Nguyen ND, et al:
JAMA; 301 (February 4): 513-521

Any low-trauma fracture can be associated with significant increased mortality risks, since bone fragility is likely a reflection of underlying poor health.

**Objective:** To determine the association of fracture risks and long-term mortality in men and women.

**Design:** Prospective cohort study.

**Participants:** 452 women and 162 men with low-trauma osteoporotic fractures.

**Methods:** As part of the Dubbo Osteoporotic Epidemiologic Study, men and women aged 60 years were followed longitudinally beginning in 1989. This cohort was assessed for physical activity, dietary calcium intake, cigarette smoking, alcohol consumption, number of falls in the last year, comorbid illnesses, and medications. Patients were followed with bone density measurements, quadriceps strength, and sway measurements. Interviews and measurements were conducted at 2-year intervals by a nurse coordinator for the study. Following a low-trauma fracture event, median time for follow-up was 13.1 years for women and 9.5 years for men. For purposes of this study, high-trauma fracture or fractures of the head, fingers, and toes were not analyzed. Vertebral fractures were identified by x-ray. Major fractures were considered to be fractures of the pelvis, distal femur, proximal tibia, 3 simultaneous ribs, and proximal humerus. Minor fractures included all remaining osteoporotic fractures. Mortality status was verified by death certificate.

**Results:** There were 952 fractures in women, and 343 in men from April 1989 through May 2007. This was equivalent to a fracture incidence of 32 per 1000 person-years. There was an increased mortality for all ages associated with all fractures except for minor fractures, in which there was increased mortality for only those persons aged 75 years. The increased risk for mortality persisted for up to 10 years for hip fractures, and up to 5 years for all fractures. Depending on the fracture type, the increased absolute mortality risks for women ranged from 1.3 to 13.2 per 100 person-years; and for men, from 2.7 to 22.3 per 100 person-years. Increased mortality hazard ratio for a subsequent fracture was 1.91 for women and 2.99 for men. Increasing age, quadriceps weakness, and subsequent fractures were predictors of mortality after any fragility fracture for both men and women. The patient's comorbidities were not predictors of mortality after a fragility fracture. Decrease in physical activity for men and low bone mineral density, having smoked, and sway were predictors for women.

**Conclusions:** Low-trauma fractures are associated with increased mortality risks at 5 to 10 years post-fracture for both men and women. An additional 5 years of increased mortality risk is associated with a subsequent fracture.

**Reviewer's Comments:** The fragility of bones is reflective of poor underlying health. Although specific comorbidities are not related to low-trauma fractures, factors such as age, muscle weakness, poor vision, and low bone mineral density are all contributors.

**Additional Keywords:** Subsequent Fracture

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Trends in MRSA Infection Are Examined

Objective: To determine the incidence of methicillin-resistant *Staphylococcus aureus* (MRSA)-associated bloodstream infections in U.S. ICUs.

Design: Retrospective analysis of a database from the Centers for Disease Control and Prevention (CDC).

Methods: The CDC’s database for Nosocomial Infections was retrospectively reviewed to calculate the pooled mean annual central line-associated bloodstream infection rate for 7 types of adult and non-neonatal pediatric ICUs. Investigators used a regression model to estimate changes in central line-associated bloodstream infections from 1997 through 2007. Researchers defined the percent of MRSA as the proportion of *S aureus* central line-associated infections that were methicillin resistant. Primary outcome measures for the study were considered the incidence rate of central line-associated bloodstream infections per 1000 central line days, and the percent of MRSA among *S aureus* central line-associated bloodstream infections.

Results: Of 1684 ICUs reporting data, investigators identified 33,587 central line-associated bloodstream infections. Of these, 2498 were reported to be MRSA and 1590 were reported as methicillin-susceptible *S aureus*. Between 1997 and 2001, there were increases in MRSA in surgical, non-teaching affiliated medical-surgical and cardiothoracic and coronary ICUs. There were no significant changes in the incidence of MRSA in medical units, teaching affiliated medical-surgical units, and pediatric units during this same study period. During the period from 2001 through 2007, there was a decrease in bloodstream infections in all types of ICU units, except for pediatric units. They found that although the proportion of *Staph aureus* central line-associated bloodstream infections due to MRSA increased 25.8% of this study period, there was an overall decrease incidence of MRSA decreased by 49.6% during the same study period.

Conclusions: In recent years, in most ICUs, there has been a decreased incidence of MRSA central line infection.

Reviewer’s Comments: MRSA is a nosocomial infection that has continually plagued health care settings. Central line cultures from ICUs provide an objective way of determining the incidence of MRSA that may theoretically parallel the incidence in other areas of the hospital. This is important information for gynecologic surgeons.

Additional Keywords: Bloodstream Infections

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IV Sedation During Surgical Abortion Provides More Pain Relief

Oral Compared With Intravenous Sedation for First-Trimester Surgical Abortion: A Randomized Controlled Trial.
Allen RH, Fitzmaurice G, et al:
Obstet Gynecol; 113 (February): 276-283

Oral sedation is not equivalent to IV sedation for pain control during first-trimester surgical abortion.

**Objective:** To determine the effectiveness of oral sedation versus IV sedation for pain control during first-trimester abortion.

**Design:** Prospective, randomized, double-blind placebo-controlled trial.

**Participants:** 130 women undergoing surgical abortion.

**Methods:** Subjects were recruited over a period from July 2006 to July 2007 from a Planned Parenthood clinic. Patients were randomly assigned to receive either (1) two 5-mg oxycodone tablets followed by 1 sublingual 1-mg lorazepam tablet or (2) 2 mL of IV fentanyl. Patients who were assigned to the IV group ingested 3 placebo tablets. After 60 minutes, they were asked to guess their group of assignment in order to assess the efficacy of the blinding process. Suction curettage was then performed in a standard fashion with paracervical block. All patients received 800 mg of preoperative ibuprofen.

**Results:** There were 65 patients assigned to the oral sedation group and 65 to the IV group. At baseline, there was a difference in age and preoperative ratings between groups. However, after adjustment for these differences, there was no effect on primary results. When researchers controlled for age, preoperative depression, stress, and anxiety, the mean intraoperative pain score for the oral sedation group was 61.2 as compared to 36.3 for the IV sedation group. Investigators found no difference in postoperative adverse effects, but there was less satisfaction with pain control associated with oral sedation versus IV sedation.

**Conclusions:** Oral sedation for first-trimester surgical abortion is not equivalent to IV sedation.

**Reviewer's Comments:** Oral sedation can be easily administered and is less costly than IV sedation, and for that reason, it is likely to continue to be used for many first-trimester abortions.

**Additional Keywords:** Oral or IV Sedation

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Uterine Artery Embolization Is Good Alternative for Intractable Postpartum Hemorrhage

Complications and Failure of Uterine Artery Embolisation for Intractable Postpartum Haemorrhage.
Maassen MS, Lambers MDA, et al:
BJOG; 116 (January): 55-61

Uterine artery embolization is a successful technique in managing postpartum hemorrhage while allowing for conservation of the uterus.

**Objective:** To report the authors’ experience using uterine artery embolization for treatment of intractable postpartum hemorrhage.

**Design:** Retrospective study done over a 3.5-year period.

**Participants/Methods:** During the study, there were 8779 deliveries, with 419 patients having postpartum hemorrhage, for a rate of 4.8%. All patients were managed initially with uterotonic agents, uterine massage, prostaglandin analogues, uterine packing, and B-lynch suturing. If there was failure of these techniques, then uterine artery embolization was undertaken. The embolization procedure included placement of an absorbable gelatin sponge in the anterior division of internal iliac artery. Success was verified by post-embolization angiogram.

**Results:** There were 419 patients with postpartum hemorrhage; 11 required uterine artery embolization, for a rate of 2.6%. Of these 11 patients, embolization was successful in 9 without complications. There were 2 cases with significant complications. In the first case, after initial embolization, there was persistent bleeding requiring a second embolization. There was persistent bleeding thought secondary to the blood supply of the ovarian arteries. Because of this, angiographic exploration of this area was begun, but subsequently abandoned and a hysterectomy performed. This patient also had a resultant neuropathy of the sciatic nerve requiring rehabilitation. One month after embolization, the patient was found to have a vesicovaginal fistula requiring repair. In the second patient, again, there was an initial embolization of the internal iliac arteries, but again, although the bleeding was less, it did not completely subside. Six hours later, a second embolization was done and, at that time, the right ovarian artery was also embolized. Post-embolization angiography showed occlusion of both internal iliac arteries as well as the right ovarian artery. However, after the second embolization during the confirmatory angiogram, the gelatin sponge material used for embolization was dislodged and migrated into the external iliac causing occlusion of the anterior and posterior tibial arteries as well as the peroneal artery and the small femoral artery branches. It was necessary to perform an embolectomy and fasciotomy. A second embolectomy was performed to establish appropriate blood flow. The patient, however, did develop complications, including necrosis of several muscles requiring removal of necrotic tissue.

**Conclusions:** Uterine artery embolization is an alternative technique in the management of postpartum hemorrhage allowing for conservation of the uterus. Complications of embolization, however, should be considered.

**Reviewer’s Comments:** Uterine artery embolization is an alternative procedure for management of postpartum hemorrhage. To use this technique, it should be performed quickly without delay. There are many minor complications reported with use of uterine artery embolization; however, as demonstrated in this study, there can be other more significant complications. Conversely, an emergency postpartum hysterectomy is not without complications. After embolization of the uterine artery, it is important to be able to recognize that possible complications may present as muscle pain, neurologic injury, and bladder dysfunction. Other signs that are concerning would be growing hematomas, infection, post-embolization ischemia, and infarction.

**Additional Keywords:** Uterine Artery Embolization Complications

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Dipslide Technique Effective for Asymptomatic Bacteriuria Dx vs Urine Culture

Accuracy of Diagnostic Tests to Detect Asymptomatic Bacteriuria During Pregnancy.

Mignini L, Carroli G, et al:
Obstet Gynecol; 113 (February): 346-352

Dipslide tests and urine cultures are effective for diagnosing asymptomatic bacteriuria but not use of urine dipsticks for leukocyte esterase and nitrates.

**Objective:** To determine the accuracy of both urine dipsticks for nitrates and leukocyte esterase and urine dipslides compared to urine cultures for diagnosing asymptomatic bacteriuria.

**Methods:** The technique of urine dipstick and urine dipslides were compared to that of urine culture for diagnosing bacteriuria, which was considered the gold standard. A midstream urine specimen was collected from each patient and then divided into 3 samples. This study was done over an approximately 2.5-year period. There were 3048 pregnant patients who underwent urine screening.

**Results:** There were 3047 samples that had a urine dipslide study, and a nitrate-leukocyte esterase dipstick was done on 3032 samples. All samples had a urine culture done. The most common pathogen isolated was *Escherichia coli*. Of 3047 dipslides done, 348 (11.4%) were considered positive and 1869 (61.3%) were negative; 27.2% were considered contaminated. The urine culture was positive in 8 dipslide tests that were negative. The urine culture was negative in 8 dipslide tests that were positive. If a dipslide test was positive, the likelihood of asymptomatic bacteriuria was 98%. If the dipslide test was negative, the likelihood of asymptomatic bacteriuria was <1%. Of 3032 dipstick analyses done, 486 (16%) were positive for nitrates or leukocyte esterase, or both; 2546 (84%) were negative for both. A positive test for the urine dipstick increased the likelihood of asymptomatic bacteriuria to 54%; a negative urine dipstick decreased the probability of asymptomatic bacteriuria to 8%. Patients who were found to have asymptomatic bacteriuria were treated with a course of nitrofurantoin.

**Conclusions:** There is an extremely high probability of asymptomatic bacteriuria in patients who have a positive urine dipslide. A negative urine dipslide reduces the chance of bacteriuria to a negligible level. Use of a urine dipstick, however, has a low sensitivity for identifying asymptomatic bacteriuria in pregnancy.

**Reviewer's Comments:** It appears that dipslides are relatively effective in diagnosing asymptomatic bacteriuria; however, dipslides do not allow for antibiotic sensitivities. Although dipslide tests would provide an effective screening technique, urine dipsticks for leukocyte esterase and nitrates appear to be poor at diagnosing asymptomatic bacteriuria.

**Additional Keywords:** Diagnostic Accuracy

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7 Days of Nitrofurantoin Better Than 1 Day for Asymptomatic Bacteriuria

One-Day Compared With 7-Day Nitrofurantoin for Asymptomatic Bacteriuria in Pregnancy: A Randomized Controlled Trial.
Lumbiganon P, Villar J, et al:
Obstet Gynecol; 113 (February): 339-345

The success rate of treating asymptomatic bacteriuria with a 7-day course of nitrofurantoin is more effective than a 1-day course.

Objective: To determine if a 1-day treatment regimen of nitrofurantoin is as effective as a 7-day regimen for treating asymptomatic bacteriuria.

Design: Multicenter, double-blind, randomized placebo-controlled trial done over a 3-year period.

Participants/Methods: Patients between 12 and 32 weeks' gestation were screened for asymptomatic bacteriuria using a dipslide technique. If the dipslide culture was positive, a urine culture was done. Patients with asymptomatic bacteriuria were randomized to either a 1-day course of 100 mg of nitrofurantoin given twice daily or a 7-day course of 100 mg of nitrofurantoin given twice daily. Patients then returned for evaluation of bacteriuria 14 days later. The primary outcome evaluated was bacteriologic cure after treatment. Secondary outcomes included subsequent symptomatic urinary tract infection, preterm delivery, low birthweight, frequency of low birthweight infants, and frequency of congenital anomalies.

Results: There were 778 patients randomized to 1 of 2 groups: 386 were randomized to the 1-day group and 392 to the 7-day group. After 14 days, a urine culture was again obtained, and the cure rate was 75.7% in the 1-day group compared to 86.2% in the 7-day group, for a cure rate difference of 10.5%. Five patients in the 1-day group and 6 in the 7-day group within 14 days after treatment subsequently had a symptomatic urinary tract infection, which was no different. When considering day 14 until delivery, the rate of symptomatic urinary tract infection again was no different between groups. Preterm delivery occurred in 11.0% of the 1-day group and 8.9% of the 7-day group. Low birthweight infants were found in 13.2% of the 1-day group compared to 8.0% in the 7-day group. These were not statistically significant. The risk of congenital malformations was also no different between groups. Mean birthweight was 3059 g in the 1-day group and 3150 g in the 7-day group. Mean gestational age at delivery was 38.4 weeks in the 1-day group and <38.7 weeks in the 7-day group.

Conclusions: The effectiveness of nitrofurantoin for treating asymptomatic bacteriuria is less using a 1-day course compared to a 7-day course.

Reviewer's Comments: Although there appeared to be essentially no difference in adverse perinatal outcomes between groups, the 1-day course of nitrofurantoin was significantly less effective than the 7-day course. It would appear therefore that the standard 7-day course of nitrofurantoin should be used for treatment of asymptomatic bacteriuria; however, other durations of treatment such as 3- or 5-day regimens may eventually show no difference in efficacy.

Additional Keywords: 1-Day vs 7-Day Nitrofurantoin

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Perinatal Outcomes With Cerclage Appear Better if With Previous Term Delivery

Therapeutic Cerclage May Be More Efficacious in Women Who Develop Cervical Insufficiency After a Term Delivery.

Poggi SH, Vyas N, et al:
Am J Obstet Gynecol; 200 (January): 68.e1-68.e3

The history of a term delivery improves perinatal outcomes in a group of patients having a cerclage placed for cervical insufficiency.

Objective: To determine if having a history of a previous term delivery has an impact on the subsequent outcome of a pregnancy with a cervical cerclage.

Design: Retrospective study done over a 4-year period.

Participants: Patients were identified who had had a cerclage placed.

Methods: There were 3 indications for cerclage placement: (1) cervical length of <2.5 cm, <24 weeks' gestation, and history of a previous preterm delivery; (2) cervical dilatation with membranes visualized on speculum exam; and (3) prophylactic cerclage placed because of a significant history. The primary outcome evaluated was spontaneous delivery prior to 35 weeks' gestation. Patients were stratified into 2 groups. The first group comprised those patients having a cerclage placed for one of the indications and having a history of a term delivery. The second group consisted of patients having a cerclage placed for the previous indications but with no history of a term delivery.

Results/Conclusions: Perinatal outcomes are better in the group of patients having cervical insufficiency and a history of a term delivery compared to those having cervical insufficiency without a history of a term delivery.

Reviewer's Comments: It would appear from this study that the cause of cervical insufficiency is multifactorial. In the group of patients with a history of a term delivery, the cervical insufficiency may only be a result of weakness in the structural integrity of the cervix that is corrected by a simple cervical cerclage; however, in the patient with no history of term delivery, the cause of cervical insufficiency may be different.

Additional Keywords: Cervical Insufficiency

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