

## Dr. Cohen references for HVRA website

D101, D2020, D2050, D2700, D2070; D2000; D2010; D2030; D2040

### Obesity

\*Rasmussen, AJOG 2008; Watkins, Pediatrics, 2003. \*Stothard, JAMA, 2009.

\*Dashe, Obstet and Gynecol, 2009; Grace, AJOG 2009

\*Hendler; J Ultrasound Med, 2005; Thornberg, AJOG, 2009.

\*Gilboa; AJOG; 2010; 202:51.e1-10; Association between pre-pregnancy body mass index and congenital heart defects.

### Maternal Obesity and Risk for Congenital Heart Disease

\*Association between pre-pregnancy body mass index and congenital heart defect. Gilboa. Am J OBSTET Gynecol, 2010

\*Pre-pregnancy body mass index and congenital heart defects among offspring: A population-based study. Madsen. Congenit Heart DIS, 2012

\*Maternal obesity and congenital heart defect: A population-based study. Mills. Am J Clin Nutr, 2010

\*Maternal overweight and obesity and the risk of congenital anomalies: A systematic review and meta-analysis. JAMA, 2009

\*Maternal overweight and obesity and risk of congenital heart disease in offspring. Brite. Int J Obes, 2014

### Universal fetal ultrasound screening

Approximately 3% of newborns have a recognizable major anomaly and at least 5% will ultimately be diagnosed with a congenital defect. Birth defects are the single most common cause of perinatal mortality in developed countries. Because most anomalies occur in the absence of family history or known risk factors, every pregnancy must be considered at risk for significant birth defects. Congenital heart disease (CHD) is the most common, the most serious, and the most frequently missed of all fetal malformations during detailed ultrasound fetal anatomic assessment. The profound majority of CHD occurs in the low-risk general population.

\* Diagnostic Imaging of Fetal Anomalies. Nyberg. p.xii.

\*Prenatal detection of congenital heart disease in south Nevada. The need for universal fetal cardiac evaluation. J. Ultrasound Med. 26:2007. p1715-1719. Acherman.

\*Improving detection of fetal cardiac anomalies - A fetal echocardiogram for every fetus? J. Ultrasound Med. 26:2007. p1639- 1641. Behtiyar and Copel.

### Genetic ultrasound

\*Aagaad-Tillery. Role of second trimester genetic sonography after Down syndrome screening. Obstetrics and Gynecology. Vol. 114, #6. December 2009. p1189-1196.

\*Genetic sonography: the historical and clinical role of fetal echocardiography. Devore. Ultrasound Obstetrics Gynecology. 2010; 35: 509-521.

\*First and Second Trimester Ultrasound Screening for Down Syndrome - Can They be Combined? Bromley. Advanced Sonography Symposium in OB-GYN. Harvard Medical School Department of Continuing Education. October 2010.

## Universal fetal cardiac ultrasound

- \*Prenatal detection of congenital heart disease in south Nevada. The need for universal fetal cardiac evaluation. J. Ultrasound Med. 26:2007. p1715-1719. Acherman.
- \*Improving detection of fetal cardiac anomalies - A fetal echocardiogram for every fetus? J. Ultrasound Med. 26:2007. p1639- 1641. Behtiyar and Copel.
- \*Role of second trimester genetic sonography after Down syndrome Screening. Obstetrics and Gynecology. Vol. 114, #6. December 2009. p1189-1196. Aagaad-Tillery
- \*Genetic sonography: The historical and clinical role of fetal echocardiography. Ultrasound Obstetrics Gynecology. 2010; 35: 509-521. Devore.
- \*First and Second Trimester Ultrasound Screening for Down Syndrome - Can They be Combined? Bromley. Advanced Sonography Symposium in OB-GYN. Harvard Medical School Department of Continuing Education. October 2010.
- \*Barriers to prenatal detection of congenital heart disease: a population-based study. Ultrasound Obstetrics and Gynecology. 2012. 40: p418-425.
- \* Pinto. Barriers to prenatal detection of congenital heart disease:a population -based study. Ultrasound Obstet Gynecol 2012; 40:418 - 425.
- \* Levy. Improved prenatal detection of congenital heart disease in an integrated health care system. Pediatr Cardiol 2013. 34:670 - 679.

## Umbilical cord color Doppler - enumeration of cord vessels, placenta cord insert, and vasa previa.

- \*Diagnostic Imaging of Fetal Anomalies, 2003. p96-98; p109-112. Nyberg.
- \*Maternal Fetal Medicine, 4<sup>th</sup> Edition. p621. Creasy.
- \*Poor perinatal outcome associated with vasa previa: is it preventable? a report of three cases and review of the literature. 1998. 12:p430-433. Ultrasound Obstetrics and Gynecology. Fung.
- \*A strategy for reducing the mortality rate from vasa previa using transvaginal sonography with color Doppler. Ultrasound Obstetrics and Gynecology. 1998. 12: p434-438. Oyelese.

## Right subclavian artery, umbilical vein, ductus venosus - genetic cardiovascular markers

- \*Aberrant right subclavian artery: A marker for chromosomal abnormality. Ultrasound Obstet and Gynecol. 2010: 36:548-552. Borenstein.
- \*Aberrant right subclavian artery: incidence and correlation with other markers of Down syndrome in second trimester fetuses. Ultrasound in Obstetrics & Gynecology. V39. Feb 2012. Paladini. p. 191.
- \*The umbilical vein anomaly in fetuses with Down syndrome. Ultrasound Obstetrics and Gynecol. 2010: 297-301. Achiron
- \*Prenatal diagnosis of ductus venosus agenesis and its association with cytogenetics/congenital anomalies. Prenatal Diagnosis. 202: 995-1000.

### **Uterine Artery Doppler**

- \*Sciscione. Uterine artery Doppler flow studies in obstetric practice. American Journal of Obstetrics and Gynecology. August 2009. p.121-126.
- \*Harrington. Value of uterine artery Doppler in the prediction of uteroplacental complications in multiparous women. Ultrasound Obstetrics and Gynecology 2004; 23:50-5.
- \*Papageorghiou. Role of uterine artery Doppler in predicting adverse pregnancy outcome. Best Prac Res Clin Obstet Gynaecol. 2004; 18:383-96.
- \*Fillippi. Uterine artery Doppler and adverse pregnancy outcome in women with extreme levels of fetoplacental proteins used for Down syndrome screening. Ultrasound in Obstetrics and Gynecology. Vol. 37, Issue 5, pp 420-527, May 2011.
- \*The role of serum markers and uterine artery Doppler in identifying at-risk pregnancies. Tuuly. Clinic in Perinatology 38 (2011).
- \*Obstetrical complications associated with abnormal maternal serum markers analytes. Society of Obstetricians and Gynecologists Canada. October 2008. #217
- \*Singh. Role of Second Trimester Uterine Artery Doppler in Assessing Stillbirth Risk. Obstetrics and Gynecology. Feb. 2012. 256-261.

### **Maternal biochemical analytes, adverse obstetrical outcome and uterine artery Doppler**

- \*Dugoff. Maternal serum markers in adverse obstetric outcome. Journal of Obstetrics and Gynecology. Vol. 115, #5, May 2010. p1057-1059.
- \*Goetzl. Adverse pregnancy outcomes after abnormal first trimester screening for aneuploidy. Clinics and Laboratory Medicine. Vol. 30, #3. September 2010. p.613-28.
- \*Fillippi. Uterine artery Doppler and adverse pregnancy outcome in women with extreme levels of fetoplacental proteins Used for Down syndrome screening. Ultrasound in Obstetrics and Gynecology. Vol. 37, Issue 5, pp 520-527, May 2011.
- \*The role of serum markers and uterine artery Doppler in identifying at-risk pregnancies. Tuuly. Clinic in Perinatology 38 (2011).
- \*Obstetrical complications associated with abnormal maternal serum markers analytes. Society of Obstetricians and Gynecologists Canada. October 2008. #217

### **Cardiovascular genetic ultrasound**

Cardiovascular genetic/level II ultrasound has a Down syndrome risk detection (sensitivity) of 90% at a 5% false positive rate. Cardiovascular genetic/level II ultrasound when performed following first and/or second trimester screening increases Down syndrome risk detection from 90 to 99% (at a 5% false positive rate) depending upon the particular type of screening study that preceded it.

- \*Aagaad-Tillery. Role of second trimester genetic sonography after Down syndrome screening. Obstetrics and Gynecology. Vol. 114, #6. December 2009. p1189-1196.
- \*Genetic sonography: The historical and clinical role of fetal echocardiography. Devore. Ultrasound Obstetrics Gynecology. 2010; 35: 509-521.
- \*First and Second Trimester Ultrasound Screening for Down Syndrome - Can They be Combined? Bromley. Advanced Sonography Symposium in OB-GYN. Harvard Medical School Department of Continuing Education. October 2010.

### **Assisted reproduction**

\*Williams. Congenital malformations after assisted reproduction: risks and implications for prenatal diagnosis in fetal medicine. Ultrasound. Obst and Gynecol, V35, Issue 3. p255-259, March 2010.

### **Placental dysfunction versus constitutional normal variants**

Maternal uterine and fetal umbilical and middle cerebral Doppler was necessary to distinguish nonpathologic constitutional normal variants versus impaired placentation ( ICD-9 762.20 ) and its accompanying placenta related adverse obstetrical outcomes.

\* Flood. The role of brain sparing in the prediction of adverse outcomes in IUGR:results of multicenter PORTO Study. Am J Obstet Gynecol 2014;211:288.e1-5.

\* Figueras. Stage-based approach to the management of fetal growth restriction. Prenatal Diagnosis.2014,34,655-59.

\* Evaluation of brain Doppler indices before labor induction discriminates small for gestational age at high risk for Cesarean delivery for nonreassuring fetal status and neonatal acidosis. Obstetrics and Gynecology 2011; 117:618-26.

### **Quantitative Umbilical Venous Blood Flow Doppler**

\* Association of Doppler parameters with placental signs of underperfusion in late onset small for gestational age of pregnancies. Parra-Saavedra. Ultrasound Obstet Gynecol 2014; 44:330 - 337.

\* Added value of umbilical vein flow is a predictor of perinatal outcomes in term small for gestational age fetus is. Parra-Saavedra. Ultrasound Obstet Gynecol 2013; 42:189 - 195.

\* Emergence of late onset placental dysfunction: Lurba. Relationship to the change in uterine artery blood flow resistance between the first and third trimesters. Am J Perinatol 2013; 30:505 - 512.

\* Longitudinal reference ranges for umbilical vein blood flow at a free loop of the umbilical cord. Flo. Ultrasound Obstet Gynecol 2010; 36:567 - 572.

\* Early and persistent reduction umbilical vein blood flow in the growth restricted fetus: A longitudinal study. Rigano. Am J Obstet Gynecol 2001; 185:834 - 838.

\* Umbilical vein blood flow in growth restricted fetuses. Ferrazzi. Ultrasound Obstet Gynecol 2000; 16:432 - 438.

### **Placental Pathology and Fetal / Maternal Disease**

\* Placental pathology: A systematic approach with clinical correlations. R. W. Redline. Placenta. 29, Supplemental A, Trophoblast Research, volume 22 (2008) S86 - S91.

\* Redline. Placental pathology: is it time to get serious? Contemporary OB/GYN. Feb 2014.

\* Cartwright. Remodelling at the maternal -fetal interface: relevance to human pregnancy disorders. Reproduction 2010 140: 803-813.