

Developmental Renal Malformations, Oligo/Anhydramnios: Pathophysiology and Clinical Aspects

August 8, 2016

Workshop Goals

1. Describe the biology of amniotic fluid production/absorption and regulation
2. Describe the epidemiology of renal malformations in relation to oligo/anhydramnios
3. Describe how renal development correlates with prenatal renal ultrasound findings (e.g. Can early ultrasound diagnose evolving urinary tract obstruction?)
4. Understand what fetal/neonatal surgical interventions and other management strategies are available for prenatally identified renal anomalies associated with oligo/anhydramnios
5. Develop approaches to evidence-based counseling of prospective parents about expected renal outcomes

Workshop

Monday, August 8, 2016

8:00 a.m.	Registration
8:15 a.m.	Welcome and Opening Remarks Dr. Cathy Spong, Acting Director, NICHD
8:25 a.m.	Meeting Objectives Tonse Raju, Pregnancy and Perinatology Branch (PPB), Division of Extramural Research (DER), NICHD
8:30 a.m.	Basic Science John Ilekis, PPB, DER, NICHD
8:30 a.m.	<i>Physiology of amniotic fluid volume regulation</i> Robert Brace, Oregon Health and Science University (OHSU)



Eunice Kennedy Shriver National Institute
of Child Health and Human Development

- 8:50 a.m. *Cellular and molecular pathways regulating trans-amnion*
Cecilia Cheung, OHSU
- 9:10 a.m. Questions and Answers**
- 9:25 a.m. *Renal and urogenital development and their developmental abnormalities*
Carlton Bates, University of Pittsburgh School of Medicine
- 9:45 a.m. *Regulation of fetal swallowing*
Michel Ross, Geffen School of Medicine at UCLA/ Fielding School of Public Health at UCLA
- 10:05 a.m. Questions and Answers**
- 10:20 a.m. Epidemiology and Genetics**
- Rebekah Rasooly, National Institute of Diabetes and Digestive and Kidney Disorders (NIDDK)
- 10:20 a.m. *Epidemiology of renal malformations*
Patrick Brophy, University of Iowa Children's Hospital
- 10:40 a.m. *Genetics of congenital anomalies of the kidney and urinary tract*
Friedhelm Hildebrandt, Harvard Medical School/Boston Children's Hospital
- 11:00 a.m. Questions and Answers**
- 11:15 A.M. BREAK**
- 11:20 a.m. Diagnostic Approaches**
- Uma Reddy, PPB, DER, NICHD
- 11:20 a.m. *Correlation of prenatal imaging of kidney malformations as basis for intervention, including recent experience with pediatric outcomes*
Jacqueline Ho, Children's Hospital of Pittsburgh/University of Pittsburgh Medical Center
- 11:40 a.m. *Role of prenatal MRI of the kidney to define its architecture and describe the nature and extent of malformations*
Deborah Levine, Harvard Medical School/Beth Israel Deaconess Medical Center
- 12:00 p.m. Questions and Answers**

- 12:15 P.M.** **LUNCH BREAK**
- 1:00 p.m.** **Maternal/Fetal Interventions**
Menachem Miodovnik, NICHD
- 1:00 p.m. *Invasive maternal interventions for prenatally identified renal anomalies associated with severe oligo/anhydramnios*
Bill Polzin, Cincinnati Fetal Center/Good Samaritan Hospital
- 1:20 p.m. *Invasive fetal interventions for urogenital anomalies (diversion of urinary tract obstruction)*
Nicholas Holmes, Rady Children’s Hospital-San Diego
- 1:40 p.m.** **Questions and Answers**
- 1:55 p.m.** **Postnatal Management and Counseling**
Marva Moxey-Mims, NIDDK
- 1:55 p.m. *Postnatal management and long-term outcomes of infants with abnormal kidneys identified prenatally*
Annabelle Chua, Duke University
- 2:15 p.m. *Challenges in prenatal counseling*
Ann Guillot, University of Vermont College of Medicine
- 2:35 p.m. *Ethical framework for obstetric, perinatal, and neonatal decision making*
Frank Chervenak, Weill Cornell Medical College and New York-Presbyterian Hospital
- 2:55 p.m.** **Questions and Answers**
- 3:10 P.M.** **BREAK**
- 3:25 p.m.** **Summary and Conclusions**
Tonse Raju, NICHD
Marva Moxey-Mims, NIDDK
- 4:30 p.m.** **Adjourn**