

Objectives: To determine the accuracy of prenatal ultrasound and whether knowledge of specific pathological findings can further improve accuracy. To determine clinical applicability of Nosology 2010 classification system.

Methods: A retrospective review of perinatal autopsies from 2002–2011 was performed to identify cases with a diagnosis of a musculoskeletal disorder, as defined by Nosology 2010. An initial read of the corresponding images and reports were performed. A repeat evaluation was performed after the reviewer was given access to the pathology findings, to determine if diagnostic accuracy could be improved by knowledge of the specific pathological findings. Data was entered into a standardised web-based reporting system. Accuracy of the initial ultrasound diagnosis was compared to the pathology diagnosis. Findings of the repeat evaluation were cross indexed to the initial read, to determine which findings may be missed.

Results: A musculoskeletal disorder was identified in 112 of 2002 (5.6%) perinatal autopsies. 91 cases had both pathology and ultrasound imaging available. The 91 cases encompassed 16 of the 40 Nosology 2010 groups. The most common specific diagnoses were thanatophoric dysplasia type 1 or 2 at 20 (22%) and osteogenesis imperfecta type 2 at 18 (20%). Accurate assessment of lethality was achieved in 90/91 (99%) of cases on both the initial and the re-read ultrasound. An accurate group diagnosis was achieved in 66/91 (73%) on the initial ultrasound, with an increased to 76/91 (84%) on the re-read ultrasound. An accurate sub-group diagnosis was achieved in 48/91 (53%) on initial read and 55/91 (60%) on the re-read.

Conclusions: Prenatal ultrasound is extremely accurate for the diagnosis of a lethal musculoskeletal disorder, can achieve a correct group diagnosis in 84% and a correct sub-group diagnosis in 60%. Prior knowledge of the pathology results helps identify features that may have been missed on the initial ultrasound. This may lead to improved prospective evaluation in these rare disorders.

OC23.06

A new sign to differentiate clubfoot from functional malposition: the transverse skin arch fold

J. Develay-Morice^{1,3}, N. Frandji-Barbier³, F. Grosjean², G. Haddad¹, C. Chau³, C. D'Ercole³, P. Mares²

¹Fetal Medicine, CFEF, Tours Cedex, France; ²Gyneco Obstétrique, Maternité Carrémeau, Nîmes, France; ³Gyneco Obstétrique Nord, Maternité, Marseille, France

Objectives: It is sometimes difficult to differentiate real clubfoot from a simple malposition particularly in the third trimester of gestation and much more if there is an oligoamnios. A new reliable sign seems to be able to distinguish them.

Methods: During a scan of the sole checking an abnormal ankle angulation we were surprised to obtain a very hyperechogenic line perpendicularly to the axis of the sole. This sign due to the increased curve of the sole lead to a transverse fold in the middle of the sole and place the skin perpendicular to ultrasound if the beam arrives in the axis of the foot. Then we looked for this sign prospectively and retrospectively for real clubfoot (50 cases) and suspicion of clubfoot (10 cases).

This simple method consists in the sweep of the sole with US beam in the axis of the sole.

Results: 42 had this hyperechogenic line transverse to the sole and had a real clubfoot. Eight did not have the line but the curve was significantly increased with a fold seen on the internal side of the sole. Ten did not have the line with a normal sole curve and was functional malposition.

We found easier to begin the sweep with a beam under the sole with an angle of about 10° as to be more perpendicular to the skin.

Conclusions: This study demonstrates the great interest of the transverse skin arch fold in the differentiation between real clubfoot

and functional malposition. In our study this sign was present in every proved clubfoot studied, particularly easy to find with the echogenic line in 84% of our cases, quite more subtle in 16% with the fold on the internal side of the sole. We did not find it in functional malposition. So that we did not found any false positive or false negative in our cases.

OC23.07

Abstract withdrawn

OC24: REPRODUCTIVE MEDICINE

OC24.01

Spontaneous conception after hysterosalpingo-foam sonography (HyFoSy)

D. Van Schoubroeck, T. Van den Bosch, K. Van Tornout, T. D'Hooghe, D. Timmerman

Department of Obstetrics and Gynecology, University Hospital Leuven, Leuven, Belgium

Objectives: We evaluated the possible influence of the HyFoSy procedure on conception and pregnancy outcome.

Methods: The fertility outcome of 359 consecutive women undergoing HyFoSy were analysed. The duration of follow-up ranged from 3 to 42 months.

Results: Of the 359 women, 199 (55%) conceived, of whom 81 spontaneously, 77 after intrauterine insemination (IUI) and 41 by in vitro fertilisation (IVF) or intracytoplasmic sperm injection (ICSI). The outcome of the pregnancies was a term delivery in 44, a preterm delivery in 5, an ongoing pregnancy in 16, while 13 cases ended as a first trimester miscarriage, one pregnancy was terminated and two patients were lost for follow-up. The number of spontaneous conceptions was the highest in the cycle of the HyFoSy and the first two cycles after the procedure. The number of spontaneous conceptions per cycle is illustrated in the figure.

Conclusions: Hysterosalpingo-foam sonography (HyFoSy) is an effective, well tolerated, radiation-free method to assess tubal patency. The present series does not indicate any detrimental effect of HyFoSy on fertility and may suggest a beneficial effect in the first 3 cycles after the procedure. This should be confirmed in larger series.

Supporting information can be found in the online version of this abstract

OC24.02

Increased likelihood of intrauterine device malposition in women with history of a previous Caesarean delivery

O. Rotenberg², J. Jou², W. Leung², E. Bircaj¹, L. Reimers¹, P. Dar¹

¹Department of Obstetrics and Gynecology, Montefiore Medical Center/ Albert Einstein College of Medicine, Bronx, NY, USA; ²Montefiore Medical Center, Albert Einstein College of Medicine, New York, NY, USA

Objectives: 1) to analyse risk factors associated with intrauterine device (IUD) malposition; 2) to examine among women with history of Caesarean delivery (CD) factors associated with IUD malposition.