



# Michigan Sonographers' Society

*Fine-tuning the skills and careers of sonographers in Michigan*

## April Meeting Minutes 2009-2010

[www.mss1.org](http://www.mss1.org)

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The March meeting of the MSS was called to order at 7:03pm by President Rita Atikian at Henry Ford Hospital in Detroit. Rita thanked those attending for coming to the meeting on St Patrick's day, and suggested that everyone be careful driving home, as some of the other drivers may have had a bit too much of the green beer. Rita reminded everyone that Symposium will be held on April 23 and 24 at Soaring Eagle. Hotel rates increase after April 1, and if you need a copy of the flyer, it can be printed from our website at

The interesting case presentations were done by the DMS students from Henry Ford Hospital. The first was presented by Ruslana Lee and Chantel LaClair-Cox and concerned an OB case that demonstrated Beckwith-Wiedemann Syndrome. There was evidence of macrosomia, macroglossia and an omphalocele. This is present in approximately 1/14,000 births and is equally distributed in male and female fetuses. Not all affected fetuses have all the features. There is an increased risk of cancer in these children, especially Wilms tumor. Some have asymmetric growth, including hemihyperplasia. Large for dates, with an enlarged kidney(s), protruding tongue and omphalocele are things to look for with this syndrome which is located on Chromosome 11 and is autosomal dominant. The second interesting case was presented by Leanne Hill and Nicole Sledzinski and concerned a 31 yo female who was G 1 P 0 who presented for dating of the pregnancy. The fetus had many abnormalities, including absent calvarium, lips and profile, as well as ectopia cordis and omphalocele. Acrania occurs during the fourth week of gestation and is uniformly fatal. Pentalogy of Cantrell is a rare finding (approx 1/100,000) and is diagnosed late in the first or early in the second trimester. There are four types of ectopia cordis and most are still born or die shortly after birth. Omphalocele presents with the intestines and abdominal contents herniating. The abdominal wall muscles do not close correctly. The patient decided to let nature take its course with this pregnancy.

The sponsors of the meeting, Steve Wagel and Debbi Hess from Toshiba were then introduced. Steve explained that Toshiba is the leader for new technology, and was the inventor of the first laptop. Toshiba has a large share of the Ultrasound business throughout the world, and is finding a growing market in the United States. The Aplio MX is a smaller, lighter machine that is ideal for the patient with a large body habitus, and has new precision imaging Micro-Pure. Precision Imaging is a pre processing technique that does not degrade the image quality or slow the frame rate, but reduces noise in the images. Micro Pure is an exclusive technology which enables the visualization of small calcs that are detectable, but not visible with normal scanning. It is able to differentiate normal speckle from calcs.

Past President Cindi Zemple then introduced the featured speaker of the evening, Gauravi Sabharwal, MD who spoke on Ultrasound of the spinal cord in the newborn. Both MRI and US are good imaging modalities for the infant spine, but the advantages of US are lower cost, no sedation needed and MRI is very sensitive to any movement, and that is not a problem with US. Spinal dysraphism occurs with Spina Bifida Aperta (outside the skin), Occult spinal dysraphism which is a covered defect, and caudal spinal anomalies which are associated with other abnormalities. Indications for US of the spine include skin covered masses, mid-line cutaneous malformations of the back, syndrome affected newborns, birth related spinal cord injury, known intracranial hemorrhage and post lumbar puncture, which can cause a hematoma that can press on the spinal cord. The technique is to use a 7 – 12 MHz linear array or an 8 – 10 MHz curved array transducer and place the baby in the prone position, preferably with a towel rolled up under

the belly/chest area to help open up the spinal processes. It is critical to note the level of the conus medullaris, the position of the cord, which should be anterior when prone, the pulsatility of the cord and nerve roots, the thickness of the filum terminale and the sinus tract. The conus medullaris should be no lower than L 2 if the infant is full term. The estimation of the conus level is sometimes done by looking at the ribs or the lower pole of the kidney, but these methods are not reliable. It is more reliable to count up from the sacrum, and the conus should be no lower than the level of L 2. Some normal variants that disappear by 1 week of life are transient dilatation of the central canal and ventricularis terminalis. In tethered cord syndrome, the conus is low lying and displaced dorsally, and there is a lack of normal cord pulsatility. Diastematomyelia is a partial or complete sagittal clefting of the cord, commonly in the T/L region and is associated with tethering and syrinx (fluid within the cord). Anterior sacral meningocele is a herniation of the dural sac through the bony sacral os, and may not be appreciated without imaging. A coccygeal defect may be unilocular or multilocular. A meningocele (spinal tissue only) or myelomeningocele (neural tissue and spinal tissue) occur in approx 2/1,000 live births with F > M. Other defects include spinal lipoma and dorsal dermal sinus which includes a connection to the skin. Acquired diseases include hematoma and CSF leak following trauma. US is a reliable and affordable way to rule out abnormalities in the newborn spine.

Hope to see everyone at Soaring Eagle next month.

Jeanne Beck, RDMS  
Secretary 2009-2010