PERİNATOLOJİ DERGİSİ

11th Congress of the Mediterranean Association for Ultrasound in Obstetrics and Gynecology

9th-12th October 2014, Belek, Antalya, Turkey

9th Congress of Obstetrical and Gynecological Ultrasonography

Program Schedule

October 9th, Thursday	
09:00-10:00	**Registration**
10:00	**Basic ultrasound examination / Chairs:** *Murat Yayla, Burcu Ülkümen* Tips for the adjustment of ultrasound machine *S. Öner*
10:15	Evaluation of the cervix-uterus- tubes-ovaries and pelvis *B. Tekin*
10:30	Ultrasound evaluation of pelvic floor *Ö. Yeniel*
10:45	Cephalopelvic disproportion by ultrasound *A. Güngören*
11:00	Standards for first trimester ultrasound examination *M. Yayla*
11:15	Prediction model for preeclampsia *F. Çayan*
11:30-11:45	Discussion
11:45-12:45	Live demonstration
13:30	**First trimester examination / Chairs:** *Reem Abu-Rustum, Özlem Moraloğlu* Fetal anatomical evaluation in the first trimester *R. Abu-Rustum*
13:45	TAD/BPD at 11-14 wks in the diagnosis of spina bifida *G. Haddad*
14:00	Serum and US markers altered in pregnancies after ART? *O. Gliozheni*
14:15	First trimester markers for aneuploidy: what makes changes? *O. Özkaya*
14:30	Ultrasound markers for spina bifida in first trimester *G. Göynümer*

09:45	Ultrasound and practising in obstetrics: where is malpractice? *M. Sezik*
10:00-10:15	Discussion
	Coffee
10:30	**Obstetric ultrasound-3 / *Chairs:*** *Soner Recai Öner, Burçin Kavak* Craniofacial malformations *E. G. Yapar Eyi*
10:45	Fetal kidney abnormalities: diagnosis and management *D. Arıkan*
11:00	Preterm delivery: screening and management by TAS/TVS *A. Atış Aydın*
11:15	Skeletal dysplasias *S. Kumru*
11:30	Fetal abdominal wall defects *F. Koyuncu*
11:45	Ectopia cordis and omphalocele: a case report *B. Artunç Ülkümen*
11:50	Term 2 and 3-dimensional ultrasound in low-risk population with a different formula comparison of estimated fetal weight *İ. Özer*
11:55	Sonographic cervical length and biochemical markers in spontaneous preterm birth (SPTB) up to 14 days from sampling *M. H. Lega*
12:00	Undergraduate medical education in Turkey in the obstetric and gynecologic ultrasound training *M. Sezik*
12:05	Ultrasound evaluation of fetal nasal bone In singleton pregnancies *B. Artunç Ülkümen*
12:10	Umbilical artery Doppler in preeclamptic pregnancy and neonatal sepsis *M. Sezik*
12:15-12:30	Discussion
12:30-13:00	Rational drug use *G. Göynümer*
	Closing

Sonographic cervical length and biochemical markers in spontaneous preterm birth (SPTB) up to 14 days from sampling

Marija Hadzi Lega[1], Ana Daneva Markova[1], Milan Stefanovic[2], Andrijana Sterjovska-Aleksovska[3]
[1]University Clinic of Gynecology and Obstetrics, Skopje, Macedonia; [2]University Clinic of Gynecology and Obstetrics, Nis, Serbia; [3]Faculty of Medical Sciences, University Goce Delcev, Stip, Macedonia

Objective: Preterm delivery (PTD) before completed 37 gestational weeks, remains one of the most important clinical problems in obstetrics throughout the world, as it is the leading cause of neonatal mortality and morbidity. Preterm delivery exerts numerous negative long-term effects on the neonate, which is especially true for extremely preterm neonates delivered before 28 gestational weeks. But, despite numerous studies, the detailed mechanisms and biological pathways that lead to PTD still remain elusive. The aim of our study was to determine the relationship between sonographic cervical length (CL), fetal fibronectin (fFN), phosphorylated insulin-like growth factor binding protein-1 (phIGFBP-1, Actim partus test), cytokines, such as interleukine-6 (IL-6), interleukin-2R (IL-2R) as well as tumor necrosis factor-alpha (TNF-alpha), and spontaneous preterm birth(SPTB) up to 14 days from sampling.

Methods: 58 patients were recruited in a period of 6 months (September 2013-March 2014) with symptoms or complaints suggestive of preterm labor. Consenting women were treated according to usual hospital protocol, with addition of vaginal swabs taken for fetal fibronectin, phIGFBP-1 (Actim partus test) and cervical IL-6, IL-2R and TNF-alpha. The outcome variable was occurrence of preterm delivery within 14 days from the day of hospital admission.

Results: 36 patients (62.07%) were delivered within 14 days from admission. The fetal fibronectin test is a significant predictor of preterm delivery. Patients with a positive fetal fibronectin test have an OR of 6.429 (95%CI 1.991-20.758) to deliver prematurely. The patients that gave birth within 14 days of admission were also statistically more likely to have a positive phIGFBP-1 test (p=0.02). All but one pregnant women that remained pregnant after 14 days of admission had a serum level of IL-2R below 500 U/mL and the difference in concentrations between the two groups is statistically significant (p=0.044). The patients that were delivered within 14 days of admission in our study group had an average cervical length of 18.78±5.8mm, which is significantly lower than the average cervical length (23.87±6.36) of patients that remained pregnant after 14 days (p=0.0028). Our results indicated that the cervical length significantly correlates with the concentration of IL-6 in the CVF (Spearman's coefficient R = -0.382, p<0.05), i.e. there is a negative indirect correlation between the two parameters, which means that increased IL-6 concentrations in the CVF mean shortening of the cervix and vice-versa. Cervical length also correlated with a positive phIGFBP-1 test i.e. patients with positive test had an average CL=18.5±4.63mm, which is significantly lower than patients with negative test-23.43±7.39mm (p=0.003).

Conclusion: The studied biochemical markers in our study were only moderately successful in the prediction of preterm delivery. Further research is required in terms of the evaluation of cost-benefit of using such test to prevent subsequent unnecessary interventions in the low-risk group, as well as to achieve the benefits from such intervention in the high-risk groups of patients.

Key words: preterm birth, cervical length, biochemical markers.