

is a risk factor for the development of pelvic organ prolapse and is correlated to recurrence after reconstructive surgery.

DTPUS has been shown to demonstrate rectocele, enterocele, and rectal intussusception with images comparable to defecography. The extent of a rectocele is measured as the maximal depth of the protrusion beyond the expected margin of the normal anterior rectal wall. On sonographic imaging, a herniation of a depth of greater than 10 mm has been considered diagnostic. The rectal intussusception may be observed as an invagination of the rectal wall into the rectal lumen or the anal canal during maximal Valsalva maneuver. Enterocele is ultrasonographically visualized as downward displacement of abdominal contents into the vagina, ventral to the rectal ampulla and anal canal. Small bowel may be identifiable due to its peristalsis. The extent of an enterocele is measured against the inferior margin of the symphysis pubis. Pelvic floor dyssynergy can be documented during Valsalva maneuver because the anorectal angle (ARA) becomes narrower, the levator hiatus (LH) is shortened in the anteroposterior dimension and the puborectalis (PR) thickens in evidence of a contraction. The most relevant utility of EAUS applies in the detection of localized EAS and/or IAS defects in patients with obstructive defecation disorders.

The configuration of perianal sepsis and the relationship of abscesses or fistulae with IAS and EAS are the most important factors influencing the results of surgical management. Preoperative identification of all loculate purulent areas and definition of the anatomy of the primary fistulous tract, secondary extensions, and internal opening plays an important role in adequately planning the operative approach in order to ensure complete drainage of abscesses, to prevent early recurrence after surgical treatment, and to minimize iatrogenic damage of sphincters and the risk of minor or major degrees of incontinence. EAUS has been demonstrated to be a very helpful diagnostic tool in accurately assessing all fistula or abscess characteristics. It can be easily repeated while following patients with perianal sepsis to choose the optimal timing and modality of surgical treatment, to evaluate the integrity of or damage to sphincters after operation, and to identify recurrence of fistula. It also gives information about the state of the anal sphincters, which is valuable in performing successful fistula surgery. A fistula tract affecting minimal muscle can be safely excised, but where the bulk of external sphincter muscle is affected, it is best treated by seton drainage or mucosal advancement flap.

KÖ-14 [18:00]

What is future of perinatal imaging?

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Understanding the structure and function of the fetal nervous system has been the dream of physicians for centuries.

The pioneering efforts of Ian Donald in obstetric ultrasound in the latter part of the twentieth century have permitted this dream to become a reality.

The initial contribution of obstetric ultrasound focused on the normal and abnormal structure. As first neuro-sonographic diagnose, anencephaly was described, followed later by increasingly subtle central nervous system abnormalities such as agenesis of the corpus callosum. Now, 4D sonography in the functional evaluation of the fetal brain has become the challenge for investigators in obstetric ultrasound. There are many functional neurological abnormalities, with cerebral palsy (CP) as one of the most important, whose causes are still poorly understood. This etiological uncertainty makes CP a rewarding medico-legal field. Attorneys throughout the world want to relate neurological abnormalities exclusively to intrapartum events associated with suspected hypoxemia, such as usage of oxytocin, forceps or vacuum delivery, and failure to perform a timely Cesarean delivery.

While during the last two decades obstetricians have become a risk group in regards to medico-legal complications, there have been substantial advances in understanding the etiology of cerebral palsy: only 10% of later diagnosed CP are caused by intrapartum asphyxia. But many questions still remain open. The final goal of prevention may be more achievable after scientific comprehension of many collaborative factors involved in the origination of CP, this still mysterious entity. The new field of fetal neurology with the latest diagnostic tool KANET offers a professional challenge. With 4D sonography it is now possible to define reproducible parameters for the assessment of normal neurobehavioral development. There is urgent need for further multicentric studies until a sufficient degree of normative data is available and the predictive validity of specific aspects of fetal neurobehavior to child developmental outcome is better established. The role of obstetrician in the antenatal detection of CP is new exciting challenge.

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KÖ-15 [08:30]

IUGR: the past, the present, the future

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To know the past can make more complete the understanding of the present and facilitate the possible future. Intrauterine growth restriction represent also today an important issue in perinatal medicine. In fact this clinical condition is present in about 8% of the pregnancies and is the second cause of peri-

natal mortality and morbidity only second to prematurity. The two conditions are often associated. The relationship between birthweight expressed as percentile for gestational age and neonatal mortality and morbidity has been first documented more than 40 years ago by Lubchenko and others introducing the concept of newborns Small for Gestational Age (SGA). This occurrence has been attributed to defective fetal growth and the term Intrauterine retardation (IUGR) was introduced. For a long time SGA and IUGR became synonymous as the only possibility to assess the fetal growth was offered by checking the final result: the birthweight.

After the introduction in clinical practice of the ultrasonic fetal biometry it became possible to evaluate the fetal size estimating also the fetal weight but more important to monitor the characteristic of the growth by serial measurement. It became soon evident that the birthweight was not reflecting always the fetal growth. In fact it is possible to observe SGA newborns not growth retarded and others presenting BW over the 10th percentile that have suffered of growth restriction in utero. By using BW or fetal estimated weight the size of the clinical problem can be over- or under-estimated. The term "retardation" has been substituted by "restriction" and today the definition of IUGR should be that of a fetus that presents a growth inferior to the individualized expectation. Surprisingly still now looking at the medical literature it is possible to find 30 different definitions of IUGR. It is evident that uniform and objective definition must be adapted.

KÖ-16 [08:45]

Prediction of adverse pregnancy outcome

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Two main groups of adverse pregnancy outcomes are nowadays of utmost interest in obstetrics: preterm labour (PL) and placental diseases including Preeclampsia (PE), Intrauterine Growth Restriction (IUGR) and Intrauterine Foetal Death.

A new concept of prediction in obstetrics has emerged in the 90's with Nicolaides K. et al.. An earlier identification of those patients at risk would allow an intensive and more accurate and personalized management algorithms of those, and it would allow initiating preventive strategies in those possible cases. There's wide evidence that preventive strategies should be applied early in the pregnancy in order to be more effective, especially in the case of aspirin and PE.

*We will first focus on preterm labour. Several parameters have been described as risk factors of PL. Nevertheless, the most important risk factor is a previous preterm delivery. Earlier the previous delivery was, higher the risk of PL in the

current pregnancy would be. Moreover, the risk would be higher as more previous deliveries the patient had.

Nevertheless, only 10% of those patients with a preterm delivery presented risk factors at first trimester.

A prediction strategy at second trimester has been validated as a screening test in low-risk population. Cervical length, evaluated in the second trimester anomaly scan, has proved to identify patients at risk for preterm delivery. 1 out of 5 patients with cervical length below 25 mm will deliver before 35 weeks of gestation.

Prevention strategies mainly based on Progesterone and cervical pessary have proved their efficacy in those patients with short cervical length, reducing the incidence of preterm delivery and the incidence of perinatal morbidity almost 40%.

*We will focus in a second term in the prediction of PE and IUGR.

In order to understand the recent evolution in the prediction algorithms of PE, it is essential to focus on the current classification of PE according to the gestational age at onset of the disease. In recent years it has been accepted that early-onset and late-onset PE are associated with different biochemical, histological and clinical features: whereas the early-onset form is almost invariably associated with placental insufficiency and growth restriction and it mostly contributes to adverse maternal and perinatal outcomes, the late-onset form is more prevalent and in general, placental involvement is minimally present. Moreover, it has been demonstrated that having a PE in a previous pregnancy considerably increases the risk in the following pregnancy.

There are multiple markers of PE, some of them are known at booking and some of them all along the first two trimesters of pregnancy. The former are based on demographic characteristics as medical or obstetric history and anthropometric maternal characteristics and they would generate a prior-risk patient. The latter markers are secondary to the pathophysiological changes preceding the onset of the disease, mainly due to a defective trophoblastic invasion. These markers are especially associated with early-onset PE. As there is no single test that predicts PE with sufficient accuracy to be clinically useful, the current strategies are based on multiparametric algorithms based on maternal history, biochemical markers and uterine Doppler evaluation.

As we have mentioned this approach will be useful in the prediction of early-onset PE but not for late-onset PE. A third trimester prediction strategy has been proposed for the more frequent form of PE. Prevention treatments would not be useful but those patients identified at high risk could benefit of a more intensive monitoring.

The prediction of IUGR would follow the same scheme as PE. Early IUGR could acceptably be predicted in the first trimester using a multiparametric strategy whereas the pre-