Conferencias especiales

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Is there still a place for the colposuspension of Burch?

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Surgical procedures for stress urinary incontinence aim to keep the urethra in the intra-abdominal high pressure zone and/or support the urethra. Historically this was achieved by retropubical suspension of peri-urethral tissues (colposuspension). Although effective, colposuspension carries an inherent morbidity as it is done via larger incisions and requires extensive dissection, and in some case additional morbidity at the donor site. With the advent of laparoscopy, colposuspension became less invasive, with a trend for more short-term patient benefits, including less perioperative complications, lower blood loss, less post-operative pain, faster recovery and shorter hospital stay, at the expense of higher cost and longer operation time. Though higher objective cure rates are reported for open colposuspension, the subjective cure rates are equal. However, invasiveness was further reduced with the advent of mid-urethral slings (MUS). A trocar system is used to insert a one centimeter-wide polypropylene sling under the mid-urethra, resulting in further reduction of blood loss, pain, complications, faster recovery and better cosmetic results. Originally the tape was directed retropubically to exit the anterior abdominal wall. This route explains a high rate of bladder injuries, which, when timely recognised, are easy to manage and without long-term consequences. This complication can be nearly completely avoided by using a transobturator approach. Transobturator slings are less likely to induce obstructive voiding, yet the risk for repeat incontinence surgery seems to be higher. Irrespective of the access method, the use of sling material may cause graft related complications, of which the most frequent is vaginal exposure, better known as erosion. This occurs in about 2% of tape insertions. The tape is also often blamed for causing pain, reportedly in 2.2%. The use of synthetic durable material to improve outcomes of vaginal prolapse surgery has become questioned, mainly because of the risk for graft related complications, which may be difficult to treat.[3] As with prolapse mesh, this may eventually prompt manufacturers to stop distribution or production of such implants. In that case, physicians will need to resort to alternative surgical techniques, in particular colposuspension. Contemporary data comparing laparoscopic colposuspension and MUS suggest equal subjective cure rates yet higher objective cure rates for MUS. Moreover, placing a MUS is less invasive, has a shorter learning curve and the procedure is standardized and reproducible.

Desaciertos y confusiones en el manejo de la infertilidad

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Siendo la infertilidad un problema de orden médico, muchas veces con origen anatómico, el profesionista se ha visto expuesto, como en muchas áreas, a la influencia de conceptos no científicos e incluso míticos sobre esta enfermedad. Dentro de los puntos básicos que hacen que el tratamiento se retrase o sea ineficaz se tiene que el medico general o el Ginecólogo no especializado en el área de la Biología de la Reproducción Humana aborda el problema de forma muchas veces inadecuadas y por largos periodos ofreciendo métodos diagnósticos y terapéuticos a una pareja cuya solución puede no ser tan básica. Por otro lado muchos médicos no especialistas en el área pueden compartir conceptos míticos sobre este problema que son difundidos y/o compartidos por los pacientes. Como ejemplo de lo anterior se pueden citar los largos periodos en donde una pareja es tratada sin resultados para ser enviada al especialista cuando sus posibilidades han disminuido, por ejemplo, por la edad. Otro caso sería el hecho de la mujer que es sometida a múltiples cirugías pélvicas (ováricas) por tumoraciones que no siempre tienen indicaciones quirúrgicas y que pueden reducir su reserva folicular.

Ya dentro del área de la Biología de la Reproducción en el momento actual se realizan una serie de procedimientos excesivos como es la laparoscopia para el diagnóstico y manejo de este problema en donde se ha visto que en aquellos casos en donde los estudios básicos efectuados para determinar el diagnóstico de infertilidad son estrictamente normales mas del 70% de estas cirugías no solo no tiene repercusiones favorables sobre el resultado terapéutico sino que al ser realizadas no demuestran hallazgos que ayuden a resolver el problema y solo incrementan riesgos y costos. La laparoscopia que hasta pocos años se consideraba indispensable para el diagnostico y eventual manejo del problema de infertilidad ahora ha visto desplazada en su ejecución, sobre todo en mujeres mayores de 35 años , por proce-

dimiento menos agresivos y mas utilitarios como son las técnicas de Reproducción Asistida. Algo similar se puede decir sobre el manejo de la endometriosis cuya presencia ,sobre todo en estadios I y II no suele tener repercusiones en la fertilidad y que es sobrevalorada como causa de infertilidad por algunos médicos que someten a la paciente a tratamientos prolongados y costosos y que en algunos casos al realizarse una cirugía con la idea de tratar de resolver el problema de infertilidad , lo único que se "logra" es afectar la anatomía pélvica y reducir la masa folicular del ovario.

En otro orden de ideas en el momento actual se pondera el diagnóstico genético preimplantación cómo una técnica para implementar las tasas de implantación-embarazo en parejas que van a procedimientos de reproducción asistida de alta complejidad.

Los fenómenos de autocorrecorrecion embrionaria y la falta de correlación entre los resultados de la biopsia del trofoectodermo con la masa celular interna así como la falta de concordancia diagnóstica entre las distintas técnicas y diferentes observadores han puesto en duda la validez y certeza de este procedimiento para tales fines. Lo mismo puede ser dicho en relación a los procedimientos para evaluar la receptividad endometrial los cuales pueden tener variaciones de ciclo a ciclo.

Es posible resumir que para mejorar las posibilidades de éxito, llámese embarazo, en una pareja con infertilidad, esta debe ser valorada y tratada por un médico especialista en Biología de la Reproducción desde su inicio para evitar fugas temporales y el mismo especialista debe de manejar un criterio pragmático, resolutivo ,económico , rápido y utilitario para resolver el problema.

Prenatal diagnosis and treatment of congenital diaphragmatic hernia

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Congenital diaphragmatic hernia is a rare disease associated with high mortality and morbidity. Antenatal ultrasound screening identifies more than 70% of cases, providing the opportunity for in utero referral to a tertiary care center for expert assessment and perinatal management. Additional genetic and morphologic assessment may be used to rule out associated anomalies. In isolated cases, the outcome may be predicted prenatally by medical imaging. The combination of lung size and liver herniation is a widely accepted method to stratify fetuses into groups with an increasing degree of pulmonary hypoplasia and corresponding mortality rates. Ultrasound measurement of the observed to expected lung-to-head ratio (o/e LHR) is most widely used. The o/e LHR is an independent predictor of survival and short-term morbidity. Finally, evaluation of stomach position has recently been introduced as an indirect method to estimate severity of the disease in left-sided defects, as it has been shown to correlate with the proportion of intrathoracic liver. A standardized assessment method has been recently proposed by the European Reference Network ERNICA, a network for treatment of rare diseases. Cases with a poor prognosis could be treated before birth. However, prenatal modulation of lung development remains experimental. Fetoscopic endoluminal tracheal occlusion triggers lung growth and is currently being evaluated in a global clinical trial. FETO is performed by percutaneous sono-endoscopic insertion of a balloon developed for interventional radiology. Entrapment of lung fluid stretches the airways, leading to lung growth. Reversal of the occlusion to induce lung maturation can be performed by fetoscopy, transabdominal puncture, tracheoscopy or by postnatal removal if all else fails. FETO and balloon removal has been shown safe in experienced hands. While FETO is invasive it has minimal maternal risks yet can cause preterm birth potentially offsetting its beneficial effects. Prenatal transplacental sildenafil administration may in due course be a therapeutic approach, reducing the occurrence of persistent pulmonary hypertension, either alone or in combination with fetal surgery.

Follow-up after treatment for CIN

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Screening followed by treatment of cervical intraepithelial neoplasia grade 2 or worse (CIN2+) have reduced incidence of cervical cancer (CC) worldwide. Over the recent years co-testing with cytology and an HPV-test have replaced follow-up algorithms with cytology stratified for information of resection margins in the histology specimen. The table comprises follow-up algorithms for some countries.

Country	Year	Recommendation
US (ASCCP)	2012	Co-test at 12 and 24 months
Norway	2015	Co-test at 6 and 12 months
UK	2016	Co-test at 6 months
Australia	2016	Co-test at 12 and 24 months
Finland	2016	Co-test at 6 and 24 months

During the presentation, I will discuss:

1. The evidence for timing of 1st follow-up in relation to risk for CC during 1st year.
2. Spontaneous regression of HPV infection.
3. The importance of HPV DNA/mRNA tests/HPV types for over-referral/retaining women with low risk for persistent disease under short-term surveillance.
4. The clinical value of having a valid definition of persistent (residual) and recurrent disease.

Relevance and importance of HPV mRNA E6/E7 biomarkers in the prevention of cervical cancer

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Cervical cancer is caused by human papillomavirus (HPV) and develops over several years through a series of precancers. HPV is a common virus and 70-80% of all women are infected during lifetime. Most HPV infections are transient and 90% will regress within two years. A type spesific persistent infection over 10-15 years increases risk of high grade precancer and cancer (CIN2+). The HPV genome has six early (E) (regulate HPV viral replication) and two late (L) (encode capsid proteins) genes where L1 is targeted by most HPV DNA tests. The real cause of cervical cancer is not the HPV infection per se, as over-expression of E6 and E7 oncoproteins have been shown to be a critical and required step for conversion to malignancy. An important event in carcinogenesis is the integration of the virus into the host genome which in terms lead to an increase in E6 and E7 expression. Biomarkers E6/E7 mRNA are precursors to E6/E7 oncoproteins, which are functional biological molecules directly relevant to disease progression, by disturbance of cell cycle control, deficiency in DNA repair, resulting in genomic instability and an increased risk of malignant transformation. The ability to detect mRNA E6/E7 offers new opportunities to improve the efficiency and effectiveness of cervical cancer screening. HPV DNA tests have excellent sensitivity for CIN2 or higher, but specificity is low. However, since most women have self-resolving HPV infections that will not develop into cancer, a positive HPV-test result provides little actionable information. The E6/E7 mRNA tests have higher specificity for high-grade cervical disease and cancer and could serve as a better risk evaluation factor, reducing colposcopy referrals. Although the HPV mRNA E6/E7 test has a lower sensitivity for detecting CIN2+, it is probable that it still identifies the lesions that are destined to progress to cancer.

Prevalence and HPV genotype distribution in cervical cancer

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Cervical cancer is caused by human papillomavirus (HPV). HPV has been detected in 99.7% of all cases of cervical cancer when combining several different methods of HPV detection. Different HPV types have different distribution in cervical cancer. The two main HPV types (16 and 18) which are included in the bivalent and quadrivalent HPV-vaccine causes 70.8% of all cases of cervical cancer. Five types (16, 18, 31, 33 and 45) causes 84.3 of all cases of cervical cancer. Seven types (16, 18, 31, 33, 45, 52 and 58) which are included in the nonavalent HPV-vaccine causes 89.4% of all cases of cervical cancer. In a study from India genotypes 16, 18, 31, 33 and 45 were the five most common types, detected in 87.1% of the total cases (Basu 2009). In a study from South Africa, using an HPV mRNA test detecting nine HPV-types (16, 18, 31, 33, 45, 52, 58, 35 and 51), 91.6% (153/167) had a positive test, while an HPV DNA test detecting the same nine types was positive for 88.0% (147/167). Even though HPV has been accepted as the necessary cause of cervical cancer, a meta-analysis of the worldwide prevalence of HPV in invasive cervical cancer by Clifford et al., noted that 11-17% of cervical cancers have been reported to be HPV negative. Failure to detect HPV in cervical carcinomas can be due to the absence of HPV DNA in the carcinoma cells, false negative test results due to low clinical sensitivity of the test, or absence of cancer cells in the sample. The most widely used method for HPV detection is PCR using consensus primers directed towards a highly conserved region of the L1 gene. Using this method may however in some cases of advanced neoplasia lead to false negative results due to loss of the L1 region upon HPV integration into the host genome.

La Reserva ovárica: ¿es realmente útil?

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Una pregunta que tenemos que valorar primero es saber cuáles serían las indicaciones para valorar la reserva ovárica. Es por ello que tendríamos que señalar que la mujer que consulta para evaluar su fertilidad y/o realizar tratamiento. La individualización de la estimulación ovárica controlada para las Técnicas de Reproducción Asistida (TRA). Si tenemos sospecha de falla ovárica prematura o de menopausia precoz. Otro motivo será la donación de óvulos, antes y después de tratamiento gonadotoxico. Tener en cuenta en el pre operatorio de cirugía de ovario, tumores de granulosa y portadoras de mutaciones BRCA1/FMR1.

Los marcadores de reserva ovárica los podemos señalar a continuación y son FSH, AMH, AFC e Inhibina B. Cuando se tiene baja respuesta vemos que los valores son amplios como se detalla a continuación.

Tratar de explicar ventajas de una vs otra al final todas predicen baja respuesta pero tiene limitaciones según puntos de corte y población estudiada.

Hay mayor valor clínico de AMH y AFC en comparación con FSH. AMH disminuirá años antes de un aumento en la FSH y, por lo tanto, es un biomarcador de la reserva ovárica más temprano y más sensible en tiempo real. Ahora se reconoce que la AMH es un producto directo de los cúmulos y las células de la granulosa mural de los folículos antrales, preantrales y pequeños durante la foliculogénesis temprana. AMH tiene una mayor correlación con el conjunto de folículos primordial (suministro de huevos) en comparación con los marcadores ováricos producidos por los folículos durante la foliculogénesis tardía (inhibina B y estradiol) y en comparación con marcadores indirectos como la FSH.

En comparación, las medidas de la AFC sólo folículos antrales que pueden ser visualizados por ultrasonido en contraste con la AMH, que refleja una población adicional de los folículos preantrales, sirviendo así como una mejor representación de la piscina folículo primordial.

Las comparaciones de los niveles de AFC y AMH generalmente arrojaron un valor predictivo similar para la respuesta ovárica y el resultado en 3 metaanálisis. Sin embargo, en marcado contraste con estos informes, 4 ensayos grandes, prospectivos y multicéntricos recientes en pacientes con FIV / inyección intracitoplásmica de espermatozoides concluyeron consistentemente que AMH fue un mejor predictor de la cantidad de ovocitos recuperados y de categorización de respondedores bajos y altos que AFC. Debido a las limitaciones de AFC en términos de variabilidad dependiente del ecografista y aspectos técnicos del equipo de ultrasonido.

Cambio en perspectivas de prescripción: bajo y alto riesgo reproductivo

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El Derecho a la Salud y Salud reproductiva es un aporte imprescindible para el crecimiento político y para la estabilidad política y es reconocido por la Declaración de los Derechos Humanos y el Estado debe de respetar, proteger y facilitar su uso.

La salud reproductiva: es el estado de bienestar Físico, Psicológico y Social del Aparato Reproductor sus Funciones y sus procesos. Compromete el derecho de disfrutar una "vida sexual plena", satisfactoria y libre de infecciones sexualmente transmisibles e incluye también el derecho de los individuos a decidir de manera libre, plena e informada el número y el espaciamiento de sus hijos. Riesgo Reproductivo es la probabilidad o grado de peligro que tienen tanto la mujer en edad fértil como su producto potencial, de experimentar enfermedad, lesión o muerte en caso de presentarse un embarazo. Riesgo Obstétrico es el peligro de enfermedad o muerte que tiene la mujer o su futuro hijo en un

Embarazo presente: hay una serie de factores de riesgo y es ahí donde se interviene para evitar el daño reproductivo; pero hay que distinguir entre riesgo reproductivo y riesgo obstétrico. La primera será prevención primaria y en el riesgo obstétrico será secundario. Los niveles de riesgo reproductivo serán bajos si no se encuentran factores bajos, riesgo mediano por ejemplo desnutrición, menor de 16 y mayor de 35 años, periodo inter-

Prueba	Punto de corte	Baja respuesta		Embarazo	
		Sensibilidad (%)	Especificidad (%)	Sensibilidad (%)	Especificidad (%)
FSH	10-20 IU/L	10-80	83-100	7-58	43-100
AMH	0.2-0.7 ng/mL	40-97	Evidencia Insuficiente	Evidencia Insuficiente	-
AFC	3-10	9-73	73-100	8-33	64-100
Inhibina BN	40-45 pg/mL	40-80	64-90	Evidencia Insuficiente	Evidencia Insuficiente

genésico menor de 1 año, mas de 4 embarazos, anemias, macrosomía etc. Será alto por ejemplo prematuridad, anemia, cardiopatías, drogadicción, alcoholismo, RCIU. Y muy alto cuando hay Diabetes gestacional B o mas grave, diabetes mellitus, cardiopatías grado III y IV, isoinmunización, etc. Sabiendo si el riesgo determinado es bajo o cero, la falla del método no determina daño severo; pero si es alto o muy alto la falla del método puede determinar un daño severo, en salud es una enfermedad severa o muerte. Los LARCs, reversibles o no, tienen una menor falla anticonceptiva. En el uso de los métodos de corta duración, la orientación/consejería, es definitiva para un mejor uso, obtener una buena eficacia y mejor adherencia. Los mitos y barreras de los profesionales influyen en la selección de las usuarias del MAC dado que los conceptos antiguos relacionados a los MAC, persisten en muchos profesionales. Las mejores evidencias se encuentran en las Guías Anticonceptivas de Practica Clínicas, como es el caso de los Criterios de Elegibilidad de la OMS, CDC, etc.
Por ello la planificación familiar es una herramienta fundamental para ejercer el derecho a la salud reproductiva. Dentro de la metodología anticonceptiva, los métodos modernos tienen una mayor eficacia; y dentro de ellos los de mayor efectividad son los LARCs. Cuando nos enfocamos en la prevención del Riesgo Reproductivo, debemos tener en cuenta la efectividad de los métodos anticonceptivos.
Recordar que los métodos de corta duración, de menor efectividad, deben tener una muy buena consejería/orientación, para mejorar su adherencia y efectividad.

Importance of triage for HPV DNA positive women with a 7 HPV genotypes mRNA E6/E7 test

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Cervical cancer can be prevented by early detection and treatment of precancerous lesions. The recognition of the importance of HPV testing is growing rapidly. HPV DNA testing is more sensitive than cervical cytology, resulting in a high positivity rate in primary screening; varying from 10% in women 34-69 years to 30% in women 25-33 years. However, the specificity is low. A large portion of women who have HPV-positive results do not have clinically significant disease. This has drawn attention to the need for objective and accurate diagnostic tests in order to identify women having a true risk of developing cancer. It is well documented that only a few HPV genotypes are highly associated with cervical cancer and require the most aggressive management, whereas others carry a lower risk of disease. The urgent need to more accurately identify the women who are warranted for colposcopy is highly addressed by clinicians to reduce unnecessary interventions and overtreatment. Such risk based approach, discriminating among the transient HPV infections requires a highly specific triage test, detecting as few false positives as possible. PreTect HPV-Proofer`7, detects HPV E6/E7 mRNA from the seven most prevalent types causing cervical cancer (HPV 16, 18, 31, 33, 45, 52 and 58) and corresponds to the types covered by the nonavalent HPV vaccine. The HPV E6/E7 mRNA test has been shown to have a high clinical specificity and positive predictive value (PPV). A low positivity rate can be translated into a low referral rate for colposcopy which is very appealing in a triage setting. Only 1/3 of women with a HPV DNA positive test is considered to be HPV mRNA positive and should be referred for colposcopy. The remaining 2/3 can be followed up with a new HPV DNA test after 12-24 months where only women with a persistent positive HPV DNA test needs colposcopy and biopsy.

Fetal-fetal transfusion: current management and improvements in the future

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Although monochorionic (MC) twin pregnancies only make up 20% of all twin pregnancies, they have a considerably higher mortality and morbidity risk than dichorionic (DC) twins. This is due to the exchange of blood through vascular anastomoses between the two fetal circulations. Twin-to-twin transfusion syndrome (TTTS) occurs in around 10% of MCs. It is caused by a certain pattern of anastomoses between the two fetal circulations leading to an unbalanced blood and fluid transfer. This leads to the severe amniotic fluid discordance and variable degrees of cardiac dysfunction. Untreated, this condition has a very poor survival rate. TTTS is the most important cause of handicap and death in MC twins. Fetoscopic laser has been shown to be the best first line treatment, in particular when the placental surface is lined along the vascular equator. Fetoscopic laser is a causative therapy, which aims to functionally create a bichorionized placenta hence arrest intertwin transfusion. In addition redundant amniotic fluid is drained. A recent meta-analysis confirmed an increased fetal survival and

decreased risk for neonatal and pediatric neurologic morbidity. Special instruments were developed in the 1990s to perform this operation percutaneously. A range of fiber endoscope diameters are available (1.0-2.0 mm), either housed or integrated into straight or curved sheaths. One or more operative channels allow for laser fiber insertion and irrigation of fluid. Diameters of instruments vary according to gestational age. We occasionally use a larger diameter, 30° rod lens endoscopes when optimal visualization is required. This rigid scope does not have a working channel, yet it allows more light and as a rod lens system it provides an image without the typical honey comb pattern of fibre endoscopes. At present we are working on flexible endoscopes with chip on a tip, instrument stabilization, post-acquisition real time image processing and the potential of mapping the placenta by stitching fetoscopic images into a wide view angle of the placenta, and MRI assisted surgery.