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The Lebanese Society of Obstetrics and Gynecology

The Stork

We Are "One"...

In more ways than one, we are "one" with this issue of Stork...On the small scale, we celebrate the first anniversary of "Stork"...It has been exactly one year since its birth, and we hope that it has been proven to be of value to our colleagues with its content and message. On the larger scale, after many harsh lessons and trying times for all Lebanese, all over this blessed land, and spanning all ages and faiths, the final message seems to be one of "unification" and of becoming "one"... It is time to accept each other for all we stand for, to coexist and to carry on the message that has been entrusted to us by our great ancestors: Lebanon has always been unique because of our differences, together we must share this gracious land and continue to value life and cherish it in all its forms...It is time to focus on more noble issues now that matters of life and death seem to have been somewhat secured: much needs to be done to empower our women and the future generation of mothers, much needs to be done in disease prevention and early diagnosis, much needs to be done in education and much inequality in the access to good medical care must be eradicated. This can only be achieved if we, the women's physicians, work as "one" with the self-same goals...So we call onto our unification through more active roles in our society, we ask each and every one of you to make your voice heard through our pages, and to participate in the many upcoming activities. Guidelines and more guidelines are our goal, and with this issue, we include post partum hemorrhage guidelines, prepared by Dr. Joseph Khoury. Our ultimate goal is to shape the future of our medical care, standardize it and ensure more equality in healthcare delivery to our mothers all over the land... And with that, we celebrate and prove our worthiness of being "one"...

INSIDE THIS ISSUE:

Listeria Live Vaccine for End-Stage Cervical Cancer

Lovaxin C is a new live Listeria cancer vaccine produced by Advaxis. The vaccine utilizes the high cell-mediated immunity induced by Listeria. Here, Listeria is bioengineered, attenuated and designed to express the antigen of HPV-16-E7, responsible for many cervical cancers. This induces a strong immunologic response in patients and allows them to attack their tumor. This vaccine has recently been tested in women with end stage cervical cancer who had failed to respond to chemotherapeutic agents, radiation or surgery. The results of this phase I/II trial were reported by John Rothman, PhD, at the American Association for Cancer Research's annual meeting. In this trial, 15 women with end stage cervical cancer, given less than 6 months to live, were randomized into 3 groups and were set to receive 2 doses, 3 weeks apart of the vaccine. Each group received a different dose of the vaccine: 1x109, 3.3 x 109 or 1010 U of Lovaxin C. Follow up was done at 3 weeks and 3 months after vaccination. All 15 patients were available for safety analysis and 13 were available for efficacy. The vaccine was better tolerated than chemotherapy or radiation and the most common side effects were fever and flu-like symptoms. Three months post vaccination, 5 patients had progressive disease, 7 were stable and one had a partial response. The responder had stage IVb disease at the time of vaccination and subsequently received 6 courses of chemotherapy followed by a radical hysterectomy. At two years, she is tumor-free. Two year follow up on those patients is showing a median survival in excess of 450 days. As a result, larger clinical trials are being planned by Advaxis to assess the efficacy of this vaccine.

Post Partum Hemorrhage Protocol Using WHO, ACOG, FIGO and CNGOF Protocols

INTRODUCTION: "More than half of all maternal deaths occur within 24 hours of delivery, most commonly from excessive bleeding" (ACOG 2006). Vaginal bleeding in excess of 500 ml after childbirth is defined as postpartum hemorrhage (PPH). Even healthy, non-anemic women can have catastrophic blood loss. Risk assessment in the antenatal period does not effectively predict those women who will have PPH. Active management of the third stage should be practiced on all women in labor since it reduces the incidence of PPH caused by atony (FIGO). All postpartum women must be closely monitored to determine those that have PPH.

PREVENTION: There are 3 main steps to prevention. First, prescribe iron and folate in pregnancy (to prevent anemia), with control of hemoglobin. Second, recognize the risk factors (ACOG):Prolonged, augmented and rapid labor; history of PPH; over distended uterus (macrosomia, twins and hydramnios); operative delivery and episiotomy; preeclampsia and chorioamnionitis. Third, actively manage the third stage by:giving oxytocin (10U IM or 5U IV) 1 minute after delivery of the baby, or ergometrine 0.2mg IM or prostaglandins, perform controlled cord traction, uterine massage and careful examination for tears (FIGO, ACOG, WHO and CNGOF).

COAGULOPATHY: Coagulopathy is both a cause and a result of massive obstetric hemorrhage. It can be triggered by abruptio placenta, fetal death in-utero, eclampsia, amniotic fluid embolism and many other causes. The clinical picture ranges from major hemorrhage, with or without thrombotic complications, to a clinically stable state that can be detected only by laboratory testing. In many cases of acute blood loss, the development of coagulopathy can be prevented if blood volume is restored promptly by infusion of IV fluids (normal saline or Ringer's lactate). One must treat the possible cause of coagulation failure such as an abruption or eclampsia. Blood products must be used to control the hemorrhage.

Diagnosis: Please refer to Table 1 for the signs and symptoms of the different causes of PPH. Keep in mind that there may be light bleeding if a clot is blocking the cervix and the woman is lying on her back. With complete inversion, there may be no bleeding.

GENERAL MANAGEMENT: Shout for help. Urgently mobilize all available personnel. Make a rapid evaluation of the general condition of the woman including vital signs (pulse, blood pressure, respiration, temperature). Massage the uterus to expel blood and blood clots. Blood clots trapped in the uterus will inhibit effective uterine contractions. Give oxytocin 10 units IM. Start an IV infusion and infuse IV fluids. Catheterize the bladder. Check to see if the placenta has been expelled and make sure it is complete (Table 1). Examine the cervix, vagina and perineum for tears. If shock is suspected, immediately begin treatment to avoid complications especially coagulopathy and or DIC. The management depends on the diagnosis.

Atonic Uterus: An atonic uterus fails to contract after delivery. Continue to massage the uterus. Use oxytocic drugs which can be given together or sequentially (Table 2). PG should not be given IV as they may be fatal. If no oxytocin is available, use misprostol (Cytotec) 800-1000mcg rectally (ACOG 2006). Anticipate the need for blood early, and transfuse as needed. If the bleeding continues, check placenta again for completeness; and if there are signs of retained placental fragments (absence of a portion of maternal surface or torn membranes with vessels), then remove the remaining placental tissue and assess the clotting status by the bedside clotting test (failure of a clot to form after 7 minutes or a soft clot that breaks down easily suggests coagulopathy). If bleeding continues in spite of management above: Perform utero vaginal packing (ACOG 2006): "Packing with gauze requires careful layering of the material back and forth from one corner to the other using a sponge stick and ending with the extension of the gauze through the cervical os". Continue the packing through the vagina. Perform a compressive dressing of the area below the umbilicus to compress the uterus from above preventing its inflation. Finally put a Foley catheter and give antibiotics. If the bleeding stops, remove the packing, the pelvic compression and the Foley after 24 hours. If bleeding continues**:** perform uterine and utero-ovarian artery ligation (ACOG, WHO, CNOGF), with or without the suturing of the anterior to the posterior wall of the uterus (B-Lynch sutures: ACOG 2006). "The hypogastric artery ligation is performed much less frequently than in years past. It has been found to be considerably less successful than previously thought" (ACOG 2006). If life-threatening bleeding continues after ligations, perform subtotal hysterectomy (ACOG, WHO, FIGO, CNGOF).

Table 1

Presenting Symptom and Signs	Symptoms and Signs sometimes Present	Probable Diagnosis
-Immediate PPH -Uterus Soft and not contracted	Hypovolemia, tachycardia, postural hypotension, decreased capillary filling	Atonic uterus
-Immediate PPH	Complete placenta Uterus contracted	Tears of cervix, vagina or perineum
-Placenta not delivered within 30 min after delivery	Immediate PPH Uterus contracted	Retained placenta
-Portion of placenta missing or torn membranes with vessels	Immediate PPH Uterus contracted	Retained Placental fragments
-Fundus not felt abdominally -Slight or intense pain -Hypovolemic Shock	Inverted uterus apparent at vulva Immediate PPH	Inverted Uterus
-Bleeding more than 24 hrs post partum -Uterus softer and larger than expectecd	Bleeding is variable and foul smelling Anemia	Delayed PPH Endometritis
-Immediate PPH -Severe abdominal pain	Shock Tender abdomen Rapid maternal pulse	Ruptured Uterus

Tears of Vagina, Cervix or Perineum:Tears of the birth canal are the second most frequent cause of PPH. Tears may coexist with atonic uterus. Postpartum bleeding with a contracted uterus is usually due to a cervical or vaginal tear. Examine the woman carefully and repair tears of the cervix, vagina or perineum. If bleeding continues, assess clotting status using a bedside clotting test.

Retained Placenta: There may be no bleeding with retained placenta. If you can see the placenta, ask the woman to push it out. If you can feel the placenta in the vagina, remove it. Ensure that the bladder is empty. Catheterize the bladder, if necessary. If the placenta is not expelled, give oxytocin 10 units IM if not already done for active management of the third stage. Do not give ergometrine because it causes tonic uterine contractions, which may delay expulsion. If the placenta is undelivered after 30 minutes of oxytocin stimulation and the uterus is contracted, attempt controlled cord traction. Note: Avoid forceful cord traction and fundal pressure as they may cause uterine inversion. If controlled cord traction is unsuccessful, attempt manual removal of the placenta.

Placenta Accreta: Very adherent tissue may be placenta acretta. Efforts to extract a placenta that does not separate easily may result in heavy bleeding or uterine perforation which usually requires hysterectomy. In the presence of previa or a history of cesarean, the prenatal ultrasound and especially color Doppler may be very helpful in suspecting the acretta and in getting the obstetrician prepared for intervention (ACOG 2006). If bleeding continues, assess clotting status using a bedside clotting test. If there are signs of infection (fever, foul-smelling vaginal discharge), treat for endometritis with antibiotics.

Retained Placental Fragments: There may be no bleeding with retained placental fragments. When a portion of the placenta—one or more lobes—is retained, it prevents the uterus from contracting effectively. Feel inside the uterus for placental fragments. Manual exploration of the uterus is similar to the technique described for removal of the retained placenta. Remove placental fragments by hand, ovum forceps or large curette. Note: Very adherent tissue may be partial placenta acretta**.** Efforts to extract fragments that do not separate easily may result in heavy bleeding or uterine perforation which usually requires hysterectomy. If bleeding continues, assess clotting status using a bedside clotting test.

Inverted Uterus: The uterus is said to be inverted if it turns inside-out during delivery of the placenta. Reposition immediately. With time, the constricting ring around the inverted uterus becomes more rigid and the uterus more engorged with blood. If the woman is in severe pain, give pethidine 1 mg/kg body weight (but not more than 100 mg) IM or IV slowly or give morphine 0.1 mg/kg body weight IM. Note: Do not give oxytocic drugs until the inversion is corrected. If bleeding continues, assess clotting status using a bedside clotting test. Give a single dose of prophylactic antibiotics after correcting the inverted uterus. If necrosis is suspected, perform vaginal hysterectomy. This may require referral to a tertiary care centre.

Table 2

	Oxytocin	Ergometrine/ Methylergometrine	15-Methyl Prostaglandin F2α
Dose and Route	IV: Infuse 20U in 1Litre at 60 drops per minute IM: 10U	IM or IV (slowly): 0.2mg	IM: 0.25 mg Can be given directly into myometrium
Continuing Dose	IV: Infuse 20U in 1Litre at 40 drops per minute	Repeat 0.2mg IM or IV (slowly) every 4 hours If required give 0.2 mg IM or IV slowly every 4 hrs	0.25 mg every 15 minutes
Maximum Dose	Not more than 3L of IV fluids containing Oxytocin	5 doses (total 1.0 mg)	8 doses (total 2mg)
Precautions and Contraindications	Do not give as an IV bolus Water intoxication with large volumes	Preeclampsia, hypertension, heart disease Can cause nausea and vomiting	Asthma

Delayed (Secondary) PPH: If anemia is severe (hemoglobin less than 7 g/dL or hematocrit less than 20%), transfuse and start oral iron and folic acid. If there are signs of infection (fever, foul-smelling vaginal discharge), treat for endometritis as prolonged or delayed PPH may be a sign of endometritis. Give oxytocic drugs (Table 2). If the cervix is dilated, explore by hand to remove large clots and placental fragments. If the cervix is not dilated, evacuate to remove all fragments. Rarely, if bleeding continues, consider uterine and utero-ovarian artery ligation. Perform histological examination of curetting or hysterectomy specimen if possible, to rule out a trophoblastic tumor.

Conclusion: Alertness, active management of the third stage and being prepared are key to the prevention of post partum hemorrhage.

Hot off the Press...

Respiratory Mobidity After Elective Cesareans

Hansen, BMJ 2008; 336 (7635): 85-7

A large cohort study has added to the evidence suggesting that elective cesarean section at term is associated with an increased risk of respiratory morbidity, and has led to call for postponing elective cesareans to 39 weeks' gestation in order to minimize risks.

Researchers at Aarhus University Hospital, Denmark, studied prospectively collected data on 34,458 live-born babies without malformations, and with gestational ages of 37-41 completed weeks, who were delivered at the center in the period 1998-2006.

Of these 34,458 newborns, a total of 2,687 were delivered by elective cesarean section. The remaining 31,771 were intended to be delivered vaginally, although 2,877 were ultimately delivered by emergency cesarean section.

The incidence of respiratory morbidity- defined as the newborn being admitted to hospital immediately after delivery, and being diagnosed by neonatologists as having any respiratory distress, transient tachypnea of the newborn, or persistent pulmonary hypertension of the newborn- was 4.2 percent among newborns delivered by elective cesarean and 1.5 percent among newborns not delivered by elective cesarean.

Analyzed by completed week of gestation, and compared with newborns intended for vaginal delivery, the odds ratios for respiratory morbidity among newborns delivered by elective cesarean section were: 3.9 (95% CI 2.4-6.5) for 37 weeks' gestation, 3.0 (95% CI 2.1-4.3) for 38 weeks' gestation, 1.9 (95% CI 1.2-3.0) for 39 weeks' gestation, 0.9 (95% CI 0.2-3.8; non-significant) for 40 weeks' gestation, 1.4 (95% CI 0.2-11.0; non-significant) for 41 weeks' gestation

A similar pattern was seen for serious respiratory morbidity- defined as requiring treatment for 3 or more days with continuous oxygen supplementation, nasal continuous positive airway pressure, or any period of mechanical ventilation- but with higher odd ratios. At 37 weeks' gestation, for example, the odds ratio for serious respiratory morbidity was 5.0 (95% CI 1.6-16.0) among newborns delivered by elective cesarean compared with newborns intended for vaginal delivery.

In addition, the findings of the study were unchanged after excluding pregnancies complicated by diabetes, preeclampsia, intra-uterine growth restriction, or by breech presentation. The researchers say in their paper: "Babies delivered by elective cesarean section at 37 to 39 weeks' gestation are at two-fold to four-fold increased risk of respiratory morbidity compared with babies delivered by intended vaginal delivery". This is consistent with the findings of increased risks in previous studies.The authors concluded: "Our results also suggest a significant reduction in neonatal respiratory morbidity may be obtained if elective cesarean section is postponed to 39 weeks' gestation. This information should be taken into consideration by women contemplating an elective cesarean section and by the obstetricians counseling them".

Delaying Elective Cesarean Reduces Neonatal Morbidity

Yee, Obstet Gynecol 2008; 111 (4): 823-8

Researchers recommend delaying elective cesarean delivery beyond 37 weeks' gestation, if possible, to reduce the risk of admission to neonatal intensive care unit (NICU) and respiratory distress.

"In our population, if elective cesarean delivery were planned for beyond 270 days (38 weeks) of gestation, the risk of respiratory distress could be reduced by 50 percent and NICU admission by approximately 40 percent in these neonates", report Wendy Yee and colleagues from the University of Calgary in Alberta, Canada. The researchers reviewed the medical charts of 1,193 mother-infant pairs. Infants born at 36 weeks or more and weighing 2,500 grams or more were included. Overall, 13.1 percent of infants delivered by elective cesarean were admitted to NICU, compared with 7.3 percent of all infants delivered vaginally in the preceding year. The most common admitting diagnosis to the NICU was respiratory distress, 126 of 156 (80%). Male gender was a significant risk factor for admission to the NICU or respiratory distress (OR 1.82, 95% CI 1.27-2.60 & OR 1.98, 95% CI 1.32-2.95, respectively). The team's analysis indicated that a 1-day advancement in gestational age could reduce the risk for respiratory distress by 7 percent.

Yee et al note that waiting for symptomatic contractions or ruptured membranes before carrying out cesarean delivery did not offer any additional protection against NICU admission or respiratory distress.

Stork Announces. . .Stork Announces. . .Stork Announces

Boston IVF Handbook on Infertility

A Practical Guide for Practitioners Who Care for Infertile Couples

Steven R Bayer, Michael M Alper, and Alan S Penzias, Boston IVF, Harvard Medical School, Waltham, MA, USA. March 2007. 264 pp.

ISBN13: 978-0-415-39432-1

Based on the gold-standard procedures and protocols developed and used at Boston IVF, the Boston IVF Handbook of Infertility presents a coherent and structured approach to the infertile couple. The book includes all that gynecologists & reproductive endocrinologists need to evaluate and treat infertility in both women and men. Both clinical and laboratory techniques are included as well as useful consent and history forms. Also included is a chapter on preconception care as guidance for couples contemplating a pregnancy. New chapters for this revised and enlarged edition include sections on endometriosis, recurrent pregnancy loss, ethics, and quality management.

SLOG Seminar on Menopausal Health

Mark your calendars for July 3 at the Metropolitan Hotel Beirut. Details to be given by Algorithm.

Member Research

A recent study, conducted by researchers at the American University of Beirut and published in the January 2008 issue of BJOG, assessed the effect of narghile smoking on the weight of newborns. Data were retrospectively collected on consecutive singleton newborns delivered from the period August 2000 to August 2003 in six major hospitals in the Greater Beirut area. A total of 378 exclusive narghile smokers (4.4%) were compared to 929 cigarette smokers and 7201 non-smokers. Multiparas were significantly more likely to smoke cigarettes or narghile. Mothers smoking narghile more than once per day were at 2.4 increased odds of having low birth weight infants compared to non-smoking mothers (OR 2.4; 95% CI 1.2 - 5.0) after adjusting for confounding variables. This occurred despite a similar mean birth weight in both groups. No difference was noted between women smoking narghile in the first trimester and those initiating smoking in subsequent trimesters regarding low birth weight.

Tamim H, Yunis K, Chemaitelly H, Alameh M, Nassar AH. Effect of narghile on fetal birth weight. *BJOG* 2008 Jan;115 (1):91-7.

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Donald F. Richardson Memorial Prize Paper at the ACOG Annual Clinical Meeting May 3-7, New Orleans: The Effect of Membrane Sweeping in Uncomplicated Pregnancies on Prelabor Rupture of Membranes (PROM). A Prospective Randomized Controlled Trial. Micah J. Hill, DO et al.

In this prospective randomized controlled trial, 300 patients, with an uncomplicated course, at term, were randomized into membrane sweeping or no sweeping, on a weekly basis, as of 38 weeks. Only the examining provider was aware of the allocation, however both patients and delivering physicians were blinded to the allocation.

162 patients received sweeping and 138 did not. The groups were comparable in both baseline characteristics as well as obstetrical and neonatal outcomes. There was no difference in the gestational age at delivery or in the induction rate. The PROM was not statistically different between the two groups: 12% versus 7% with P=0.19. However, the rate of PROM was statistically higher in patients at 2-3cm who underwent membrane sweeping: 11% versus 0% with P<0.5. This study proves that membrane sweeping is of no benefit at term in decreasing the rate of induction or in decreasing post-datism. Though there was no increase in the overall rate of PROM with membrane sweeping, there definitely was an increase in the rate of PROM in those with a dilated cervix at 2-3cm. As a result, it is time for us to rethink this practice that seems to be of no benefit in patients with a cervix dilated to < 2cm. And on the contrary, in patients with a cervix of 2-3cm, there seems to be more harm than good with membrane sweeping.

Upcoming Congresses

COURSE TITLE	DATES	LOCATION	WEBSITE ADDRESS
Comprehensive Colposcopy	August 7-10	San Francisco, CA	www.asccp.org
18th World Congress on Ultrasound in Ob/Gyn	August 24-28	Chicago, Illinois	www.isuog2008.com
American Urogynecologic Society	September 4-6	Chicago, Illinois	www.augs.org
European Congress of Perinatal Medicine	September 10-13	Istanbul, Turkey	www.kenes.com/ecpm/
Society of Laparoendoscopic Surgeons	September 17-20	Chicago, Illinois	www.sle.org
Royal College of Obstetricians & Gynecologists with American College and Canadian Society of Ob/Gyn	September 17-20	Montreal, Canada	www.rcog2008.com
North American Menopause Society	September 24-27	Orlando, Florida	www.menopause.org
Middle East Fertility Society	October 15-18	Hammamet, Tunisia	www.mefs.org
World Congress on Cervical Pathology & Colposcopy	October 19-23	Auckland, New Zeeland	www.wccpc.co.nz
International Society of Gyn Cancer	October 25-28	Bangkok, Thailand	www.igcs.org/meetings/bangkok08.html
37th Annual Meeting of the American Association for Gynecologic Laparoscopy	October 28-November 1	Las Vegas, NV	www.aagl.org
American Society for Reproductive Medicine	November 8-12	San Francisco, California	www.asrm.org
11th World Congress on Controversies in Obstetrics, Gynecology and Infertility	November 27-30	Paris, France	www.comtecmed.com/cogi/paris