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SPECIAL EDITORIAL

Postpartum hemorrhage: A cure that eludes us



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Dr Louis G. Keith is Professor Emeritus of Obstetrics and Gynecology and former Director of the Section of Undergraduate Education and Medical Student Affairs at Northwestern University, in Chicago, USA. During his 29-year tenure at Northwestern, he has supervised the education of more than 5000 medical students in the discipline of obstetrics and gynecology. Twinning has been a major focus of his research interests and his text, "Multiple Pregnancy," was awarded the "Book of the Year" in Obstetrics and Gynecology by the British Medical Association in 2005. His most recent academic interest is postpartum hemorrhage and his co-edited book "A Textbook of Postpartum Hemorrhage" was launched at the Royal Society of Medicine in London in October, 2006 by HRH, Princess Anne; since its publication Dr Keith has lectured on averting maternal death from postpartum hemorrhage in numerous countries worldwide. Dr Keith was Assistant Editor of the IJGO from 1987 to 2006, and remains an active member of the Editorial Board.

Unlike many other disciplines of medicine in which notable improvements in morbidity and mortality have been observed, the

obstetric community continues to lament the abysmal statistics related to postpartum hemorrhage (PPH) worldwide. Even the statistics themselves are a matter of concern, because the numbers provided by authoritative groups such as FIGO and the International Confederation of Midwives are widely believed to be undervalued by a factor of at least two. Moreover, these numbers only concern mortality, while the short- and long-term morbidities remain uncounted or poorly counted, even in high-income countries.

Having acknowledged this lamentable state of affairs and without recounting the numerous reasons that lie behind it—many of which have been told and retold in the pages of the IJGO as well as at the triennial meetings of FIGO by successive presidents of the organization—practicing physicians can take heart from the numerous important therapeutic advances for treatment of PPH that have been reported over recent years. Equally, the attention this problem is garnering on an international level seems to be increasing. Many countries are doing something in a manner that is both compatible with local customs and satisfactory to the medical community. In India, for example, numerous joint ventures have been established between the central government and the Federation of Obstetric and Gynecological Societies of India (FOGSI). These are directly aimed at reducing maternal mortality from PPH at the local level. In addition, India was the site of the largest of the clinical trials of oral misoprostol administered by midwives, the results of which showed a significant reduction in hemorrhage (relative risk for acute PPH 0.53 and for acute severe PPH 0.22) [1]. In other countries, Prendiville et al. [2] showed in a meta-analysis of patients who had and had not received active management of the third stage of labor that blood loss greater than 500 ml was reduced from 13.6% in the control group to 5.2% in women treated actively. A similar reduction was noted in women with blood loss greater than 1000 cm³ (2.6% vs 1.7%).

Physicians interested in surgical techniques have had much to think about as well. Not only has the recently reported B-Lynch compression suture been embraced worldwide [3], but Mr Lynch reported in a personal communication to me that it has been used in more than 1800 instances with only 17 failures. Of these, many operations were performed late after the hemorrhage had ensued or, as reported by Gottlieb et al. [4], the authors had elected to place an additional fundal suture which was later associated with necrosis of the part that was deprived of its blood supply. It should be clear that the intent of the B-Lynch compression suture is not to deprive the uterus of its blood supply, but rather to exert a compressive effect which, in effect, acts as a "belt plus suspenders (braces)." Similarly, it should also be clear that the ligation of the internal iliac artery does not totally deprive the uterus of its blood supply, as a rich anastomotic system is in place at all times and counters the effect of the drop in the arterial pulse pressure that occurs after ligation of the iliac arteries [5].

Similar advances have occurred in therapeutic options for placenta accreta. What once was a rare occurrence is much more common following the explosion in the numbers of cesarean deliveries. Here again, options exist that once would have been unbelievable, including leaving the placenta in situ and administering methotrexate or segmentally resecting the area in question. All are well described in a recent review [6].

As important as these advances are, their dissemination at the community level is equally important. The IJGO is at the forefront of this dissemination, not only devoting an entire supplement to the proceedings of an International Conference on the Prevention of PPH [7], but being amenable to publishing articles on this topic on a regular basis. Indeed, 23 distinct articles on some aspect of PPH have been accepted since 2005, in addition to the conference supplement. The January issue is no exception. It contains two articles that have widespread implications for practicing physicians. The first, by Ducloy-Bouthors et al. [8] from France, describes the impact of a perinatal network on morbidity and mortality. The concept of a functioning network works in other countries as well, as shown in Tamil-Nadu in India, where local nurses and other health auxiliaries are provided with cell phones by the government in order to "network" into the system of health stations and local or district hospitals where more therapeutic options are possible. The second, by Yildirim et al. [9] describes the use of color Doppler in the analysis of the pelvic arterial system following internal iliac ligation. Their work presents additional evidence that ligation of the internal iliac arteries does not cause long-term deleterious effects. Color Doppler is no longer a "Star Wars" option, but something that is readily available in many local offices.

In closing, interested readers should be aware of "A Textbook of Postpartum Hemorrhage" published by Sapiens Publishing, which is freely downloadable at <http://www.sapienspublishing.com/medical-publications.php#1>. Specific chapters in the book provide valuable guidance for physicians in resource restricted locations, notably active management of the third stage of labor, compression sutures, labor ward drills, and other cheap and easily available means to reduce morbidity and mortality. In addition, a birth assistant leaflet for immediate management of PPH can be downloaded at <http://>

www.sapienspublishing.com/pph_pdf/PPH-Guidelines.pdf and the B-Lynch suture technique poster can be downloaded at http://www.sapienspublishing.com/pph_pdf/PPH_Poster.pdf.

It is no exaggeration to state that PPH is an equal opportunity killer, and that women with known risk factors often do not bleed excessively, whereas the primipara in the next bed with no risk factors may die in two hours if therapy for PPH is not instituted on a timely and effective basis. Use of the numerous new techniques and resources available will help to compensate for the fact that the true cause of the episodic occurrence of uterine atony, a major and often unpredictable cause of the majority of PPH cases, remains elusive.

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