

“Quilting” sutures to prevent hysterectomy in patients with postpartum hemorrhage

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Postpartum hemorrhage (PPH) is the primary cause of maternal mortality. All obstetricians should know a safe, easy to perform method of uterine suturing in patients with PPH. The methods of B-Lynch et al. [1] and Pereira et al. [2] are relatively complicated. Ligation of the uterine artery is not sufficient as the only method to stop bleeding. A back stitch “quilting” technique was therefore developed by obstetricians at Klinikum Fulda in Germany.

Quilting sutures have been used in patients with PPH at Klinikum Fulda to avoid hysterectomy after unsuccessful application of uterotonic agents. The technique places U-sutures to fix the anterior to the posterior wall starting at the top of the fundus down to the cervical segment. Up to 12 sutures are needed to compress the uterus completely (Fig. 1). The technique employed curved sharp needles, which were bent from 7.5 cm to 9 cm (DS95; Serag-Wiessner, Germany). A size 1 absorbable suture was used (Vicryl; Ethicon, USA).

Between November 2006 and December 2011, 8 patients were treated using the quilting technique. Cesarean delivery was performed between 35 + 2 and 41 + 6 weeks of pregnancy. Gravidity ranged from 1–4 and parity ranged from 0–2. Delivery was induced by misoprostol in 2 patients. In 6 patients up to 6 units of blood and 4 units of fresh frozen plasma were transfused. All patients stayed in the intensive care unit for 1–2 days. Hysterectomy was avoided in all cases. All patients left hospital at between 6 and 12 days. No patient complained of any disturbance at follow up. One subsequent pregnancy has been reported.

The back stitch technique is safe and is easy to perform and remember. This quilting technique could be practiced in small



Fig. 1. Uterine quilting sutures.

obstetric units that do not have operative facilities to perform postpartum hysterectomy. Compared with the B-Lynch suture, the back stitch technique results in greater compression and better hemostasis. The method of Ouahba et al. [3], published after the present study had begun, uses fewer stitches resulting in less compression. It is hoped that the contribution of the quilting technique may help to reduce maternal morbidity and mortality caused by PPH.

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