

POSTPARTUM VOIDING DYSFUNCTION

Hypothesis / aims of study

Postpartum voiding dysfunction affects a variable proportion of women. It has a prevalence of 0.45% to 14.1% (1). These wide-ranging figures may be due to the absence of a standardized definition of what constitutes postpartum voiding dysfunction. Depending on the definition used, asymptomatic women with postvoid residual volumes (PVRV) >150 ml may be grouped at one end of the spectrum, while women who are unable to void spontaneously (overt postpartum voiding dysfunction) are grouped at the opposite end (2). The aetiology of postpartum voiding dysfunction is unclear although risk factors include prolonged 1st stage of labour, use of epidurals and instrumental delivery.

Our study looked at possible demographic and obstetric factors associated with postpartum voiding dysfunction. Its occurrence in previous and subsequent pregnancies is reported in order to evaluate the risk of recurrence. The study consisted of women with overt postpartum urinary retention as they formed the most easily identifiable group. This also enabled us to look at a group of women with the severest form of the condition.

Study design, materials and methods

This was a retrospective study involving review of the case-notes of affected women. Affected individuals consisted of those requiring either indwelling catheterisation or intermittent self-catheterisation (ISC) due to the inability to void spontaneously during the immediate postpartum period. All had PVRV >100ml. An up-to date database of affected women is kept and this was used to identify them. Resumption of spontaneous voiding with PVRV <100 ml was used to define resolution of voiding dysfunction.

Demographic and obstetric data are presented as Median [Range].

Results

Between 1999 and 2004, 26 women required catheterisation for postpartum voiding dysfunction. The records of 22 women were available. Our obstetric unit deals with approximately 3400 deliveries per annum. Their median age was 29 [22, 39] years. 52% were of Asian origin and the rest Caucasian. 38% had 1 previous delivery; the remainder were primiparous.

Spontaneous vaginal deliveries made up 48%, instrumental deliveries 33% and cesarean sections 19%. 52% of the labours required oxytocic augmentation and 71% had epidurals. Lengths of the 1st and 2nd stages of labour were 8 [3, 25] hours and 1.9 [0.25, 3.5] hours respectively. The median gestation at delivery was 40 [34, 41] weeks and the median birth weight was 3146 [2240, 4220] g.

81% of voiding dysfunction was diagnosed prior to discharge. ISC was commenced in 71% of women. Voiding dysfunction lasted 17 [3, 34] days. 48% had a confirmed urinary tract infection (UTI) at the time of catheterisation.

2 women experienced postpartum voiding dysfunction in their previous pregnancy. 4 women had subsequent deliveries, all of whom had no problems with recurrent postpartum voiding dysfunction. Specific plans concerning bladder care during delivery were absent in all.

Interpretation of results

Voiding dysfunction is associated with a high proportion of epidurals and operative deliveries. Nearly half of affected women had confirmed urinary tract infections. In our local community, Asians make up approximately 25% of the population; however a disproportionately high proportion of Asians had postpartum voiding dysfunction. None with previous voiding dysfunction had specific plans documented to address the prevention of recurrent problems. The risk of recurrent voiding dysfunction in a subsequent pregnancy was 33%.

Concluding message

The overall incidence of overt postpartum voiding dysfunction was low. Its course tends to be prolonged; however no women required catheterisation for more than 34 days. 33% of affected women had recurrent problems in a subsequent pregnancy. Such women need to be identified so that clear plans for bladder care during labour and in the immediate postpartum period can be instituted. The use of antibiotics should be considered in women requiring catheterisation as a high proportion had urinary infections. Asians seemed to be over-represented among those with postpartum voiding dysfunction. This could be an indication of inherent racial differences regarding susceptibility to voiding dysfunction post partum.

References

1. Postpartum urinary retention. *Acta Obstet Gynecol Scand* 2004; 83: 881-891
2. Factors that are associated with clinically overt postpartum urinary retention after vaginal delivery. *Am J Obstet Gynecol* 2002; 187: 430-433