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PROLONGED POSTPARTAL URINARY RETENTION AFTER VAGINAL DELIVERY: SUPRAPUBIC CATHETERISATION OR CLEAN INTERMITTENT SELF-CATHETERISATION?

Hypothesis / aims of study

The prevalence of postpartal urinary retention (PUR) varies widely in the literature between 0.05% and 14.6% depending on the definition used [1]. By the lack of a standardised definition most authors apply the clinical definition of PUR as the absence of spontaneous micturition within 6 hours after vaginal delivery. In our institution, patients without spontaneous voiding within at least seven days after delivery or a post void residual bladder volume (PVRBV) of more than 150 ml qualify as prolonged PUR (PPUR). Although PUR may be a transient phenomenon even a single episode of bladder distension can irreversibly damage the detrusor muscle, therefore resulting in permanent voiding dysfunction [2]. To avoid this complication, suprapubic catheterisation or clean intermittent self-catheterisation (CISC) are performed. As CISC is quickly learnt and acceptable to most patients, it has become a valuable tool in managing bladder dysfunction. It seems that not only practical aspects should be taken into consideration when initiating CISC, but also the probably more important psychological aspects such as embarrassment, fear and problems with self-image. Currently there are no evidence-based policies available on long-term (more than 14 days) urinary catheter usage for bladder drainage, particularly in women with PPUR [2].

Our objective was to evaluate our experiences with suprapubic or clean intermittent self-catheterisation in women suffering from PPUR and to establish a guideline for our institution, whether to apply suprapupic catheterisation or clean intermittent self-catheterisation (CISC).

Study design, materials and methods

We performed a retrospective chart analysis of our patients who had been diagnosed with PPUR regarding postpartum voiding habits, initial post-void residual bladder volume (PVRBV), treatment applied, and duration of therapy, number of symptomatic infections treated, and acceptance of CISC were compared with results published in literature.

Results

Over a period of five years we found 6 patients with PUR in 9295 deliveries, prevalence was 0.06%. 2 performed CISC, 4 received a suprapubic catheter, and one was switched to CISC due to persistent urinary tract infection. Duration of therapy was 4-8 weeks in the CISC group, in the other 3-7 weeks. Half of our patients had urinary tract infections. Though CISC was proposed to 4 of the 6 patients only two started with this procedure. The reasons to decline given by the 2 patients were fear of additional pain after a painful perineal tear, dislike of contact with vaginal discharge, embarrassment, feeling too overwhelmed by the situation and the procedure to be taught.

Of the two patients not asked, one patient received a suprapubic catheter already in the emergency room. She had been dismissed in the morning and returned because she could not void at all at home. The ultrasound examination gave an estimated bladder volume of 3,400 ml, which was verified after catheterisation. The second patient received a suprapubic catheter because at that time our institution had not had any experience with CISC yet.

Table 1 summarizes our results

Patient	**1**	**2**	**3**	**4**	**5**	**6**
Suprapubic catheter	no	no	yes	yes	yes	yes
CISC	yes	yes	yes	no	no	no
Duration of therapy (weeks)	8	4	7	6	3	4
Symptomatic infections	0	0	2	1	1	1
PVRBV (ml)	1300	1300	1450	3400	2000	600

Interpretation of results

Prolonged urinary retention resolved in all patients. The prevalence in our institution is quite low.

The rate of symptomatic infections is high in our group. The procedure itself may contribute to the infections. However, the fact that we gave no antibiotic prophylaxis could be much more important, even though symptomatic urinary infection can occur despite prophylaxis. Unfortunately this issue is not mention or discussed in most published papers .

The recommendation for CISC is more coherent [1], because it stresses independence and self-responsibility, it requires less equipment (no drainage bags). Protection of the upper urinary tract can be achieved with suprapubic or even urethral catheterisation.

The duration of the therapy in our patients seems to be longer than described in literature, but the two cases with 8 and 7 weeks of treatment differ from the other cases in our group. One had a history of an episode of retention as a young girl, suggesting an underlying condition, though urodynamics and neurological examination after three month showed no abnormalities. For the other one we had to change from suprapubic catheter to CISC due to a persistent infection. Omitting these two, the range would be 3–4 weeks, the same that is mentioned in literature.

We found in literature no details as to why woman with PUR would refuse CISC. Most published articles focuses on the technical aspects, dealing with physical and clinical benefits or disadvantages of the procedure and do not explore the impact on quality of life [3] or reasons to decline. Among the reasons given by our patients, two are unique to woman with PPUR, namely the fear of additional pain after a painful perineal tear and a dislike of contact with vaginal discharge. A broad

application of analgesics and uterotonics would be useful by reducing painful sensations and the amount of vaginal discharge, thus helping to motivate patients for CISC.

Concluding message

Neither our results nor a review of the literature permit establishing a guideline. Both methods can be recommended and applied, they share the same problems, i.e.occuring infections and there is no difference in the periode of time catherisation is needed. When CISC is recommend to women suffering from PPUR, the postnatal situation with vaginal discharge, painful perineal tears or episiotomy should be considered.

References

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Is this a clinical trial?	**Yes**
Is this study registered in a public clinical trials registry?	**No**
Is this a Randomised Controlled Trial (RCT)?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require ethics committee approval because	**because it was a retrospective chart analysis. Data had no impact on diagnosis and treatment.**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**No**