

EFFICIENCY OF BLADDER SCAN™ (BVI-3000) FOR VALUATION OF THE RETENTIONNAL URINARY VOLUME 2 HOURS IN THE POSTPARTUM. PROSPECTIVE STUDY OF 70 PATIENTS.

Aims of Study

The frequent utilization, in obstetrics, of the loco-regional analgesia gives back generally necessary the trans-urethral probing after delivery (2 hours). Recent studies have confirmed, the interest of the ultra-sonographic measure of the post-mictionnal residue so much to the man that to the woman by the aid of a volumetric captor 3D (Bladder Scan™). To our knowledge, little studies have studied the vesical retentionnal volume in post-partum . The aim of this prospective study has been to show the feasibility and reliability of the measure of the vesical retentionnal volume to 2 hours in the postpartum period with the Bladder Scan™ (BVI-3500).

Methods

During 1 months, 70 patients have been tested for the measure of the retentionnal vesical volume to 2 hours in the post-partum by the Bladder Scan™ (BVI-3000). For each patient, 5 measures have been immediately realized to value this volume. The mean of those ultra-sonographic measures has been compared with the obtained volume after urethral probing. No patients in this study, have been delivered by caesarean section. The statistical analysis has used the method of Bland & Altman, the coefficient of correlation of Pearson and the test of Mann-Withney.

Results

The measure of the retentionnal vesical volume in postpartum had shown a good reproductibility with the ultra-sonographic hardware used. Also a good reliability had been obtained between the measures by the Bladder Scan™ (BVI-3500) and the urethral probing. The coefficient of correlation between those 2 methods was 0,95 ($p < 0,0001$), confirming the metrological qualities of the Bladder Scan™ (BVI-3000) in this situation. The retentionnel vesical volume has been not found significantly associated neither with amount of perfusion, neither the delay between delivery and urethral probing (mean : 2 hours and 20 minutes, SD : 28 minutes), neither the instrumental extraction, and neither epidural analgesia.

Conclusions

The utilization of Bladder Scan™ (BVI-3000) in the postpartum appears reliable to value the retentionnal volume of urine after delivery. Half of the patients have a retentionnal volume superior to 500 milliliters, what lays the problem of his responsibility in an urinary ulterior handicap ?

References

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