

Managing difficult catheter placement in complex urethroplasty and lower urinary tract reconstruction with a new Urethral Catheterisation Device

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INTRODUCTION AND OBJECTIVES: Problematic urethral catheterization before or immediately after complex genitourinary reconstructive surgery (GURS) can be a difficult scenario even for expert surgeons in an operation room environment. The reconstructed lower urinary tract may be tortuous such as in FTM-gender reassignment, or the catheter tip may get caught between the fresh anastomotic sutures. Any force or manual manoeuvre may damage the reconstruction with devastating outcomes for the patient. Cystoscopic catheterization may be undesirable as any irrigation and prolonged instrumentation increases post-operative infection risk. Recently a new urethral catheterization device became available to manage difficult or failed urethral catheterization. The UCD® consists of a 3-way Foley catheter with integrated hydrophilic Nitinol guidewire. The single-use device is ready-to-use whenever needed without delay avoiding the wait for specialist instruments or equipment.

METHODS: We evaluated the usefulness of the (UCD®) in our GURS-patient cohort when problematic catheterization in complex lower urinary tract (LUT) reconstruction was encountered and standard Foley-catheterization was not feasible and recorded any adverse events related to intra-operative UCD-catheterization. We recorded how often we used the device and how fast the catheterization difficulty was resolved.

RESULTS: 16 men with failed standard Foley-catheterization after various complex LUT-GURS were catheterized with the (UCD®) without adverse events. In 15 of 16 (94%) UCD-catheterization was successful first-pass. In 1 of 16 (6%) the UCD-guidewire first turned, but the second insertion attempt was successful and no cystoscopic catheterization was necessary. In addition, one patient could receive bladder irrigation using the (UCD®). Managing problematic intra-operative urethral catheterization with the UCD® was time efficient resolving the problem in <5min in 94% of cases, excluding the time it took to collect the sterile consumable from the storeroom.

CONCLUSIONS: The UCD® is a useful catheter device solving problematic urethral catheterization in complex GURS avoiding extra theatre time with patient care delay and potential risk of urethral catheterisation injury and traumatic damage to the complex LUT reconstruction. The UCD® is cost effective and time efficient providing safe patient care.

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