

LONG-TERM FUNCTIONAL OUTCOMES OF NON-CONTINENT URINARY DIVERSION FOR PRESSURE SORES WITH URETHRAL FISTULA IN SPINAL CORD INJURED PATIENTS.

Hypothesis / aims of study

Urinary diversion may be performed in case of pressure sores with urethral fistula to allow healing process. However, data are scarce in the literature regarding long-term results.

The aim of the study was to report the long-term functional outcomes of non-continent urinary diversion (NCUD) for pressure sores with urethral lesion in spinal cord injured (SCI) patients.

Study design, materials and methods

We retrospectively reviewed medical records of all SCI patients who underwent NCUD for pressure sores with urethral fistula between 1999 and 2015 in our department. Collected data included urological history and comorbidities (cardiovascular, nutritional state), perioperative outcomes, early (<p.o.d. 30, according to Clavien's classification) and late postoperative complications. Urological (renal function, upper urinary tract assessment) and functional outcomes (pressure sores healing, autonomy) were also reported.

Results

Overall, fifty-five SCI patients (neurological level : 8 cervical, 26 thoracic and 21 lumbar) with a mean age of 50 years (16-38) were included. Sex ratio M/F was 1,6 (21F and 34M). The mean follow-up was 60 months (10-203).

Only eleven patients (20%) had a systematic neuro-urological follow-up. The main voiding mode was indwelling catheterization (45%, n=25) and 46 patients (84%) reported preoperative urinary leakage.

Fifty-four patients (98%) underwent transileal urinary diversion (46 with concomitant cystectomy) and one patient underwent bilateral ureterostomy, allowing perineal dryness before pressure sores surgery.

The early postoperative complication rate was 38% (n=21) including 13% (n=7) of Clavien IIIb grade. One death was reported, occurring 137 days after surgery due to acute respiratory distress syndrome. One patient experienced pressure sore recurrence due to a pyocystis and required cystectomy 3 years after initial surgery.

The reoperation rate was 24% (n=13) including 10% of upper urinary tract drainage. At last follow-up, all patients kept their NCUD. The kidney function remained stable with a mean creatinine clearance of 87 ml/min (22-190).

Fifty-three per cent (n=29) of patients were able to manage independently their stoma and pressure sores healing was achieved for 80% of them (n=44).

Interpretation of results

Urethral lesion should be investigated in case of persistent perineal pressure sores. Urinary diversion seems necessary to allow healing process (1). However, data are scarce and there is no long term results in the literature.

In our study, most patients had an indwelling catheter with urinary leakage, without systematic follow-up.

Regarding our results and the literature (2), concomitant cystectomy seems to be indicated to avoid pyocystis and pressure sores recurrence. A multidisciplinary approach is necessary for the management of these patients.

Concluding message

NCUD before pressure sores surgery in case of urethral fistula allows healing process in SCI patients with long term preservation of renal function.

Lack of systematic follow-up, indwelling catheterization and urinary incontinence seems to favour urethral lesions and pressure sores recurrence in this population of patients.

References

1. Bejany D.E. et al. Continent urinary diversion and diverting colostomy in the therapy of non-healing pressure sore in paraplegic patients. Paraplegia 1993 ; 242-48.
2. Chartier-Kastler E. et al. Neurogenic bladder management and cutaneous non-continent ileal conduit. Spinal Cord 2002 ; 40 : 443-448

Disclosures

Funding: NONE **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** It was a service evaluation with retrospective study after IRB approval **Helsinki:** Yes **Informed Consent:** Yes