

Interplay of Bladder and Bowel Dysfunction in a cohort of Adult Spina Bifida Patients

In adults with spina bifida, CIC was associated with greater bowel dysfunction and substantially larger bladder volumes. These findings support integrated bowel–bladder assessment and careful monitoring of bladder emptying patterns.

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- Retrospective single-centre cohort from adult multidisciplinary SB clinic.
- Standardized history + two-day bladder diary; χ^2 tests and t-tests ($p \leq 0.05$).

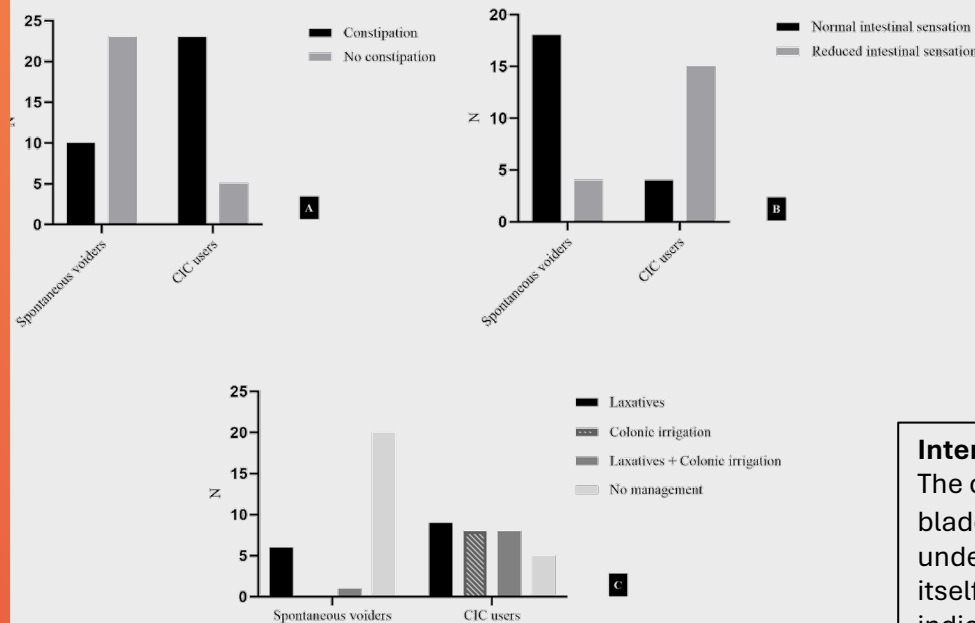
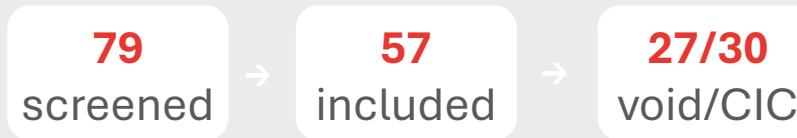


Fig. 1. (A) Constipation was more common in patients in the CIC user group than spontaneous voider group ($P = 0.003$). (B) Reduced intestinal sensation was more common in patients in the CIC user group than in spontaneous voider group ($P = 0.001$). (C) In CIC user group patients applied more bowel management techniques such as: laxatives, colonic irrigation, and combination of laxatives and colonic irrigation, than patients in spontaneous voider group ($p = 0.001$).

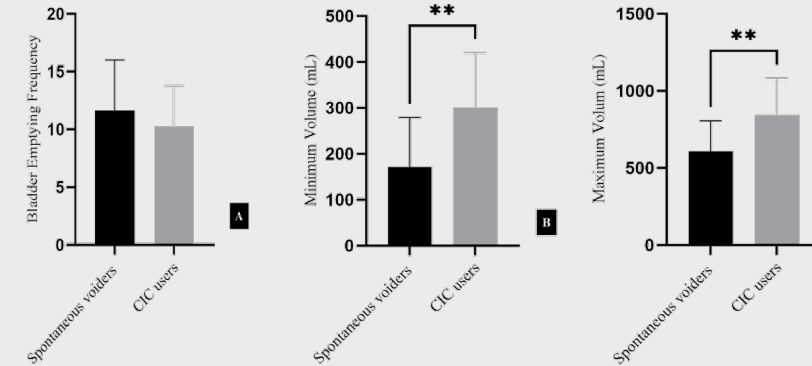


Fig. 2. (A) Effect of bladder emptying techniques on the bladder emptying frequency. There was no significant difference in the bladder emptying frequency in spontaneous voider group ($M = 11.64$, $SD = 4.35$, $N=17$) and CIC user group ($M = 10.19$, $SD = 3.55$, $N=21$); ($P = 0.264$). (B) Influence of the bladder emptying techniques on the minimum urine volume. An increased urine volume was observed in CIC user group ($M= 300.5$ mL, $SD= 111.5$, $N= 17$) compared to spontaneous voider group ($M=184$ mL, $SD=114$, $N=14$); ($P = 0.008$). (C) Influence of the bladder emptying techniques on the maximum urine volume. An increased urine volume was observed in CIC user group ($M= 844$ mL, $SD= 238.5$, $N=17$) in comparison with spontaneous voider group ($M=608.5$ mL, $SD=197$, $N=15$); ($P = 0.005$).

Interpretation

The co-occurrence of bowel dysfunction and higher bladder volumes in CIC users may reflect a greater underlying neurogenic burden rather than an effect of CIC itself. The high recorded bladder volumes may additionally indicate insufficiently frequent emptying and a risk of repeated bladder overdistension.

Conclusion

Bladder and bowel dysfunction are closely associated in adults with spina bifida. Integrated bowel–bladder assessment, including review of catheterization schedules and bladder diary volumes, should therefore be part of long-term care.