Bladder augmentation and urinary diversion in patients with neurogenic bladder: Non-surgical considerations

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Segments from almost all parts of the bowel have been used for urinary diversion. As a result, the available absorptive surface area of the bowel is reduced, and the incorporation of bowel segments into the urinary tract may have metabolic consequences. This is an area somewhat neglected in the literature. Metabolic complications are rare, but sub-clinical metabolic disturbances are quite common. Several studies have demonstrated that some of the absorbent and secreting properties of the bowel tissue are preserved after incorporation into the urinary tract. Hyperchloraemic metabolic acidosis can occur if ileal and/or colon segments are used, as well as malabsorption of vitamin B(12) and bile acid after the use of ileal segments. These metabolic effects are not as severe as may be suspected and can be prevented by prophylactic substitution. Secondary malignancies can develop as a long-term consequence of bladder augmentation. Using colonic segments, tumours are most likely to occur at the ureteral implantation site. To prevent metabolic complications, careful patient selection and meticulous and lifelong follow-up, as well as prophylactic treatment, are mandatory. Endoscopy for early detection has been recommended, starting 10 years postoperatively for patients who underwent surgery for a benign condition.

Editorial Comment

This a nice review on the topic of non surgical complications implicated in bladder augmentation and urinary diversion in pediatric neurogenic bladder patients. Although the article does not bring any outrageously new fact out it does remind us of the severe implications that may take place following this type of surgery, notably in children. There should be a concern regarding this specific population as less invasive treatments lack efficacy and must be repeated continuously and regularly for a lifelong period.

Although the use of intestinal segments have been widely used for many years it seems clear that it is far from being the ideal solution. Research in tissue engineering may bring a more suitable alternative in the future.

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