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## **VOIDING DISORDERS IN PATIENTS WITH SPINAL CORD INJURY**

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**Introduction.** The Lower Urinary Tract is responsible for storage and periodic voiding of urine which are controlled by a complex neural circuits composed of afferent and efferent nerves which supply the lower urinary tract (bladder, internal and external urinary sphincter), peripheral ganglia, spinal cord and brain. In spinal cord injuries at or below the lumbosacral region, patients lose control of micturition leading to requirement of assisted emptying.

**Aim:** to study the structure of neurogenic urination disorders in patients with spinal cord injuries at various levels.

**Material and methods.** 60 patients of 4<sup>th</sup> City Clinical Hospital Minsk, with spinal cord injuries and neuromuscular bladder dysfunction were examined. The diagnosis was made on the basis of the presented diagnostic algorithm.

*Urine diversion by patients was carried out in four main ways:* 

- 1. Uncontrolled voiding or assisted emptying of the bladder ("tapping", "squeezing") and / or using a uro-condom, diaper in 20 patients (33.4%)
  - 2. Assisted emptying of the bladder by self-catheterization in 20 patients (33.4%)
  - 3. Periodic self-catheterization in 18 patients (29.9%);
  - 4. An indwelling urethral catheter/cystostomy was present in two (3.3%) patients.

**Results and their discussion.** Thus, an analysis of 60 patients with neuromuscular dysfunction of the bladder after traumatic spinal cord injury showed that it is reasonable to distinguish 2 main types of voiding disorders:

- 1. Patients with preserved spontaneous urination, as well as patients with partially preserved independent urination and self-catheterization (group A).
- 2. Patients who do not have an independent act of micturition, urine diversion is carried out only by self-catheterization, a permanent urethral catheter or using a cystostomy (group B). Patients of the first group are patients with detrusor hyperreflexia (with a hyper-reflex bladder), the second with detrusor hyporeflexia (with a hypo-reflex bladder).

**Conclusion.** The proposed division into groups is justified in terms of differences in urinary diversion, as well as existing differences in the causes and levels of spinal cord injury, bladder capacity and upper urinary tract complications.