Urinary incontinence

According to the latest definition of the ICS (*International Continence Society*), the symptom of urinary incontinence is defined as **a complaint of any uncontrollable leakage of urine**[1].

Urinary incontinence affects women more often (up to 30-50%) than men, the incidence increases with advancing age, but it can also occur in children. It is usually not a life-threatening condition (except for acute urinary retention), but it significantly reduces the quality of life. The psychosocial impact of this disorder is serious and requires a qualified approach. This is a relatively sensitive and intimate issue, most patients are ashamed of the disorder, some quit their jobs, stop going out to social, stay only at home, make their own devices for collecting leaked urine, etc. For this reason, most of them never does not seek professional help, or comes at an advanced stage.

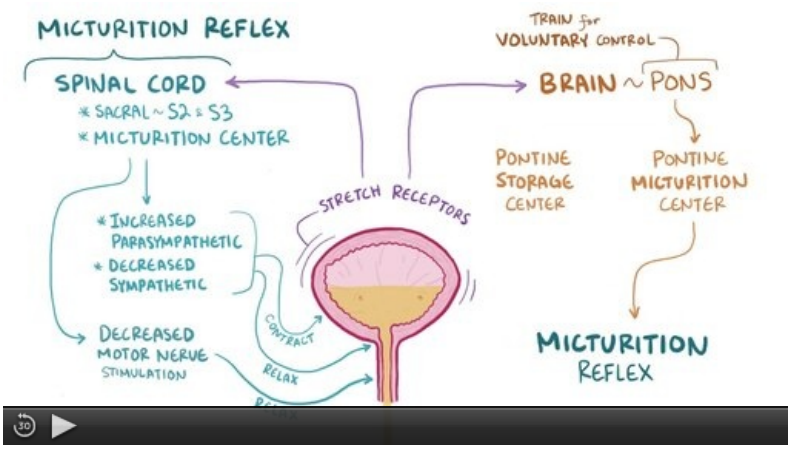
Nowadays, we are able to increase the quality of life of almost all patients with urinary incontinence by combining medical procedures.

Clinical significance

Spontaneous leakage of urine can be caused by a number of pathological processes, so it is not a specific disease.

If we talk about urinary incontinence, it can be[1]

- symptom (*symptom*) – the patient complains of incontinence, it is established by anamnestic;
- sign – *the* doctor sees it during the examination;
- condition – increased pressure in *the* bladder during filling cystometry is measured.



Video-definition, pathogenesis, symptoms, complications, treatment

In clinical practice, we distinguish four basic types of incontinence: **stress, urgent** (when the so-called **mixed incontinence** occurs at the same time), then **reflex** and **paradoxical**. Spontaneous leakage of urine can also be caused by psychological influences, etc.[1].

Stress incontinence

For more detailed information, see Stress urinary incontinence (https://www.wikilectures.eu/w/Stress_urinary_incontinence)

The cause of stress incontinence is usually an **anatomical abnormality** in the area of the small pelvis (insufficient function of the suspension system, reduced elasticity of the bladder, a change in the position of the pelvic organs or hypermobility of the bladder neck). In postmenopausal women, a drop in estrogen levels is also involved, as a result of which there is a decrease in the height of the endometrium (*intrinsic sphincter defect*). Individual causes can be combined. Leakage of urine occurs when intra-abdominal pressure increases (when coughing, laughing, straining, standing up, walking up stairs, etc.).

Urge incontinence

More detailed information can be found on Urgent urinary incontinence (https://www.wikilectures.eu/w/Urgent_urinary_incontinence), Overactive bladder (https://www.wikilectures.eu/w/Overactive_bladder).

Urge incontinence is a condition associated with a sudden urge to urinate, regardless of bladder filling. It is usually impossible to hold back micturition, which results in the subsequent leakage of urine. The cause of this condition is **a malfunction of the** bladder detrusor. It can be a pathology of motor function (excessive contraction of the detrusor = hyperactive bladder), or sensory function (hypersensitivity of detrusor receptors, chronic irritation of the detrusor by a foreign body - lithiasis, cancer, foreign body, etc.).

Reflex incontinence

Reflex incontinence arises from a disorder in central nervous system, or rather in the **center of conscious micturition control.** Therefore, the patient is unable to voluntarily suppress the need to urinate and micturition occurs reflexively (via the parasympathetic pathways) from the center in the sacral spinal cord (S2-S4) when the bladder is sufficiently full. Patients are also unable to recognize when urine leakage occurs. It is most often found in connection with senile dementia.

Paradoxical incontinence

Ischuria paradoxa is associated with urinary retention (e.g. with obstruction, sphincter innervation disorder). Bladder filling occurs, without the possibility of urine evacuation. Accumulated urine increases **intravesical pressure**, and provided it **exceeds the value of urethral pressure**, spontaneous leakage of urine occurs (hence, the bladder "overflows").

Psychogenic incontinence

It arises in states of anxiety or fear in the so-called adaptation period (e.g. period of hospitalization). It occurs more often in elderly patients.

Incontinence caused by long-term urethral insertion

With long-term insertion of a permanent urinary catheter, dilation of the urethra can occur and the function of the bladder sphincters is canceled. Urine leaves the bladder spontaneously.

Diagnostics

Due to the large number of etiological agents causing urine leakage, it is necessary to take **a detailed medical history** (mainly family, urological, gynecological, oncological and pharmacological). Part of the anamnesis collection is **a voiding diary**, where the patient records the intake and output of fluids and the situation in case of leakage of urine during the day for a specified period of time. Furthermore, **questionnaires** regarding the quality of life, etc. As part of the physical examination, **the aspect and palpation of the urogenital area** are essential, and for women, a gynecological examination *á specula* and an examination *per rectum*. **Functional examinations** (Marshall test, Q-tip test, etc.) are also very important.

Imaging methods primarily confirm the diagnosis of urine leakage, or show abnormalities in the urinary tract. As standard, we perform **an ultrasound** examination of the kidneys and an assessment of the urinary residue in the bladder, the urinary tract and their disorders will be displayed during **intravenous excretory urography**, or **CT excretory urography** in a lateral projection.

Followed by urodynamic examinations, which determine the type of urinary incontinence and the treatment strategy. Non-invasive methods include **uroflowmetry** and **EMG of pelvic floor muscles**, invasive methods **include filling and micturition cystometry** and determining **the urethral pressure profile.**

The goal of diagnostic methods is to confirm urinary incontinence, determine its type and cause, and determine a treatment strategy.

Therapy

Treatment for urinary incontinence varies depending on the underlying cause. It is often complex and includes a set of regimen, prosthetic, rehabilitation, psychotherapeutic, pharmacological, as well as operative methods.

- Optimal drinking regime;
- physical activity
- strengthening of the pelvis floor;
- toilet availability;
- compensatory hygiene aids.

Links

Related Articles

- Urination
- Overactive bladder
- Nocturia
- Polakisuria
- Radiodiagnostic examination of the urinary tract
- Stress urinary incontinence
- Urgent urinary incontinence

External links

- Urogynecology - Urinary incontinence in women (https://portal.lf1.cuni.cz/clanek-402-urogynekologie-inkontinence-moci-u-zen)
- Urinary incontinence in a general gynecological clinic (http://www.mocova-inkontinence.cz/inkontinence-moci-ve-vseobecne-gynekologicke-ambulanci)

References

- ŠAMÁNKOVÁ, Marie. *Fundamentals of nursing.* 1. edition. Karolinum, 2006. 353 pp. ISBN 80-246-1091-4.
- ROB, Lukáš – MARTAN, Alois – CITTERBART, Karel. *Gynecology.* 2. edition. Galén, 2008. 390 pp. ISBN 978-80-7262-501-7.

References

1. MARTAN, Alois. *Inkontinence u žen* [lecture for subject Gynekologie a porodnictví předstátnicová stáž, specialization Všeobecné lékařství, 1. lékařská fakulta Univerzita Karlova v Praze]. Praha. 3.2.2014. Avaliable from <https://el.lf1.cuni.cz/gpmartan1a>.

Recommended reading

- MARTAN, Alois. *Urinary incontinence in women and its medical treatment : Guide for the attending physician.* 2. edition. Maxdorf, 2006. 83 pp. ISBN 80-7345-094-1.