

**Background.** Symptoms of idiopathic overactive bladder (iOAB) affect ~17 % worldwide of women, and its prevalence increases with patient age. Autonomic dysfunction in the genital area can be assessed using sympathetic skin response (SSR). SSR tests can be used for the detection of early iOAB and assessing those likely to be refractory to anticholinergic drugs. Treatments options for iOAB include lifestyle modifications, behavioural therapy, pharmacotherapy, neuromodulation, Botulinum toxin therapy and surgical interventions. The American Urological Association and the European Association of Urology recommend bladder wall injection with Botulinum neurotoxin A (BoNT-A) in women with idiopathic detrusor overactivity who have not responded to conservative treatment.

**Case report.** Patient I., female, age 31 years, diagnosed clinical with iOAB, confirmed on urodynamics, underwent the SSR investigation for assessment of autonomic nervous system. The patient had been refractory to different anticholinergic drugs and there was no response to conservative therapy for over 10 years. Before injection, patient was asked to complete a 4-day voiding diary, to record the quantification, the frequency of voids, the number of incontinence episodes and the number of episodes of nocturia. The treatment started with antibiotic prophylaxis (ciprofloxacin 1g i/v twice daily) for 1 day before the injection procedure and continued for 3 days after treatment. Saline cystoscopy was performed using a 19-F rigid cystoscope, under i/v anaesthesia. BoNT-A (100 UI) was mixed with 10 ml 0.9 % sodium chloride and administered 1 ml over 20 different sites, each 1 cm apart, supratrigonally, using 18-gauge needle for rigid cystoscopies, inserted 3 mm into the bladder wall. After 2-3h of procedure was a successful demonstration of voiding. The woman didn't develop any adverse effects like urinary tract infection, gross haematuria, injection site pain or urinary retention. Follow-up at 1, 3, 6, 9 and 12 months, with 4-day voiding diaries, clinical and SSR was carried out. Injections increased voided volume >90 ml, decreased urinary frequency, absence of nocturia and improved QoL. Clinical effects of BoNT-A were evident in 1 week and last up to 12 months. The results of SSR before and after a week of injection established the significantly pronounced changes in time taken for the ascending wave A1 (parasympathetic component) comparing with time taken for the ascending wave A2 (sympathetic component). Before injection of BoNT-A mean score was S1A1=0,5sec., S2aA2=0,94 sec., after injection respectively was 0,34 sec. and 1,1 sec.

**Conclusions.** Botulinum toxin type A might be an alternative to invasive surgery for patients in whom conservative measures for treatment of iOAB have failed. The SSR can serve as a complex diagnostic of iOAB and assessment the efficiency of treatment with BoNT-A.

**Key words:** idiopathic overactive bladder, Botulinum toxin type A, intravesical injections.

## DEPARTMENT OF OPHTHALMOLOGY AND OPTOMETRY

### 47. OCULAR CHEMICAL BURNS. CASE REPORT.

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**Background.** Ocular burns represent about 11-22% of ocular trauma. The most affected are young men, 20-40 y. o. These can happen anywhere, at home, work or after physical aggression. The most severe damage is due to acids and alkali. They can destroy limbal stem

cells and produce recurrent epithelial ulcerations, chronic stromal ulcers, deep stromal vascularization and corneal perforation, in this way leading to blindness. Acid ocular burns are produced by: sulfuric acid (battery acid, industrial cleaner), acetic acid (vinegar), hydrochloric acid (chemical laboratories), sulfurous acid (bleach, refrigerant, fruit and vegetable preservative). Alkali burns: ammonia (fertilizers, refrigerants), lye (drain cleaner), lime (plastic, mortar, cement, whitewash), potassium hydroxide (caustic potash), magnesium hydroxide (sparklers, incendiary devices). In our case, patient's burn was due to salicylic acid (a component used for preparing drops to treat dermatomycosis).

**Case report.** A 42 y.o. male presented to our clinic with right eye pain, redness and decrease of visual acuity for two weeks, when he accidentally instilled a drop of topical dermatomycosis medication (which contains salicylic acid of 10%, ethanol 3%, phenol 1% and preservatives) considering it as artificial tears. That led to severe ocular pain, irritation, watering and photophobia. Clinical examination revealed: VA OD/OS = 0,01/0,67; at slit lamp biomicroscopy - diffuse conjunctival congestion with corneal epithelial defect of  $6 \times 5.7$  mm involving the central visual axis with swollen rounded edges and surrounding area of corneal edema. After saline wash, the patient started on topical moxifloxacin 0.5%, dexamethasone 0.1%, vitamin C drops, hydroxy propyl methyl cellulose 0.3%, and carboxymethylcellulose gel 1% along with oral doxycycline 100 mg and vitamin C 500 mg., subconjunctival autologous serum and 2 amniotic membrane transplantation were performed. The defect healed leaving behind a macular corneal opacity after a period of 10 weeks, VA OD= 0,16.

**Conclusions.** 1. Salicylic acid and phenol are frequently used for most dermatological drugs. They affect the ocular surface, causing chemical burns. 2. The release of dermatological drugs similar to ophthalmic solutions in vials is a risk factor for confusing them, especially if the patient has visual impairment, is mentally deficient, or simply is in a hurry. 3. The treatment of chemical burns is very challenging and often ends with blindness.

**Key words:** ocular trauma, acid burn, corneal transplant

#### 48. SURGICAL TREATMENT IN INDUCED OCULAR HYPERTENSION IN RABBIT

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**Background.** Nowadays, glaucoma imposes a major issue for public health, representing the second worldwide leading cause of blindness (WHO Resnikoff 2002). It is a group of complex and heterogeneous ocular diseases, characterized by progressive optical atrophy (Almasieh 2012; Yanoff, 2014; Salmon, 2020). Glaucomatous damage is irreversible; therefore understanding its pathology and selection of optimal management minimizes the risk of progression and development of visual loss. That is why the researches continue. We report a case of filtration surgery treatment in experimentally induced ocular hypertension.

**Case report.** Since for reliable tonometry in awake rabbits, it is advisable to keep the animals as quiet and unfrightened as possible, avoiding excessive manipulation and stimulation, we thought of using Tono-PenXL© Reichert at New Zealand rabbit and to take the measurement of normal IOP (intraocular pressure) after surface anesthesia. An ocular hypertension model in