PHOTOTHERAPY FOR ALLERGIC RHINITIS. OUR EXPERIENCE.

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Introduction

Allergic rhinitis is a very common disease with increasing social and economic impact. Medical therapy is expensive, not always effective and has significant side effects. The only ethical treatment: allergic avoidance is often impossible.

Phototherapy is a new and promising therapeutic modality for allergic rhinitis. Accumulating data support that phototherapy actively suppresses the effector phase of the disease at multiple checkpoints and results in significant improvement of allergic symptoms, even in patients who were unresponsive to conventional anti-allergic therapies. The treatment of allergic rhinitis is a complex problem, including elimination of the inhaled allergens from the patient’s environment, specific pharmacotherapy, and immunotherapy.

Although, new antihistamines and local steroids are used with good results, there are cases in which complete resolution of the symptoms cannot be obtained. Moreover, the use of these drugs is controversial in special subsets of patients such as pregnant and breast-feeding women. All these characteristics of allergic rhinitis highlight the need for effective new treatment options.

Aim

Based on the above, we decided to study the impact of broadband intranasal phototherapy on the symptoms of with intermittent or persistent allergic rhinitis.

Material and methods

We studied 37 patients with allergic rhinitis, aged from 18 to 59 years, all with positive skin prick tests (RPT - 4 mm), which underwent intranasal phototherapy at the Medical Institute of the Ministry of Interior or Military Medical Academy, Sofia.

Before application of rhinophototherapy all of them had at least a 3 weeks period free of anti-allergic medications.

They were treated with Rhinolight IV Device (Rhinolight Ltd., Hungary) in accordance with the protocol, recommended by the manufacturer.

Results and discussion

In all cases we found objective and subjective improvement (in nasal scores, endoscopic and acoustic rhinometry indicators).

Endoscopic Score

Nasal endoscopy

Visual Analog Scale (VAS)

Acoustic rhinometry

Phototherapy actively suppresses the effector phase of allergic rhinitis at multiple checkpoints by reducing the antigen presenting capacity of dendritic cells, by inducing apoptosis of immune cells (dendritic cells, T and B cells and eosinophils), by inhibiting synthesis and release of pro-inflammatory mediators from eosinophils, mast cells, basophils and T cells.

Mechanism of action of phototherapy in allergic rhinitis.

Conclusions:

Broadband intranasal phototherapy seems to be an effective method for treatment of allergic rhinitis. It can be indispensable, especially in cases with contraindications for drug application.

References

4. Kemény L: Tradition and science in photomedicine. JEADV 18: Suppl. 1, 17, 2004