

NON – SEDATING ANTIHISTAMINS IN THE THERAPY OF SOME DERMATOSES

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SUMMARY:

The formation of the contemporary non-sedating and low sedating antihistamins (AH) brings a new stage in treatment of allergodermatoses, as well as the dermatoses connected with intensive pruritus. The use of 2-nd and 3-nd generation AH - non sedating or with a low sedating potential gives an improvement of quality of life of the patients. The aim of such treatment is to inhibit the effect of the liberated from mast cells mediators upon the target tissues and suppression of the symptoms. The mechanism of this inhibition is realized by suppressing of H-1 receptors, so the act as H-1 blokera. The main characteristics of the new generation non- sedating AH. Basic principal of treatment allergodermatoses with non-sedating AH: urticaria (chronica, holinergica, idiopatica, physical, cold, solar, urticaria due to pressure) and endogenous eczema.

Key words: antihistamine, non-sedating antihistamins, urticaria, endogenous evzema

The formation of the contemporary non-sedating and low sedating antihistamins (AH) brings a new stage in treatment of allergodermatoses, as well as the dermatoses connected with intensive pruritus. The use of 2-nd and 3-nd generation AH – non-sedating or with a low sedating potential gives an improvement of quality of life of the patients. The aim of such treatment is to inhibit the effect of the liberated from the mast cells mediators upon the target tissues and suppression of the symptoms. The mechanism of this inhibition is realized by suppressing of H1- receptors, so the AH act as H1-blockers.

The main characteristics of the new generation non-sedating AH are:

1. High affinity and high selectivity to H1-receptors give strong antihistamine effect, so strong suppression of the allergic reaction, respectively controlling the symptoms.

2. The use of non-sedating AH guarantees a quick initial effect and controlling of the symptoms as well as the fact that the effect is prolonged – 24 hours. This makes these medicaments very practical for use.

3. Non-sedating AH have anticongestive properties (Lippert U. et al, 1995, 2000), which is an additional positive effect on the symptoms of the diseases.

4. There is an opportunity for a prolonged use of

non-sedating AH (several months, even a year) depending on the disease.

5. The new generation AH is defined as medicines without sedating potential or with a low potential, so they do not have a central sedating effect, which makes them useful in patients working mental work or drivers.

6. Non-sedating AH have excellent profile of safety (insignificant liver metabolism, lack of cardiotoxic effect, no other medicament combination).

Specific characteristics of the non-sedating AH medicaments:

ZYRTEC (Cetirizine dihydrochloride) – tabl. 10 mg, solution 10 mg/ 1ml – the quick initial effect and giving up the symptoms in 95% of the treated happens at the 60-th minute; the duration of the effect is 24 hours; an excellent security profile is proved; it does not influence from the enzyme metabolic system cytochrome P450; improves the quality of life in 85% of the treated; an opportunity for use in childhood and nurselings, proved with facts.

XYSAL (Levozetirizine) – tabl. 5 mg – active enantiomer of cetirizine; optimal connection with H1-receptors (high affinity and selectivity, good connecting, optimal volume of distribution); it is not influenced by the enzyme metabolic system cytochrome P450; keeps high effectiveness at the 24-th hours.

CETIRIZINE HEXAL (Cetirizine dihydrochloride) – tabl. 10 mg, solution 10 mg/10 ml – high antihistamine activity, quick and prolonged effect; possibility for a long use – 18 months for adults, and several weeks for children; it is not used in children below 2 years old; rare side effects of common character /headache, anxiety, tiredness, gastrointestinal problems/; overdosing bring sleepiness.

CETIRINAX (Cetirizine) - tabl. 10 mg – strong selective antagonist of H1-receptors; duration of treating effect 24 hours after a single taking; quick and stable treating effect in 65% of the patients; insignificant side effects (headache, tiredness, nausea, dryness in the mouth); has insignificant sedating effect is not influenced by the enzyme metabolic system cytochrome P450; The co-use with CNS-antidepressants is not recommended; it is not used in children below 6 years old.

CLARITIN (Loratadine) – tabl. 10 mg- strong and quick initial effect after the 30-rd minute in 75% of the

treated; prolongation of action – 24 hours; full lack of sedating effect; high selectivity to H1-receptors; it doesn't potent the effect of alcohol and diazepam; it is influenced by the enzyme metabolic system cytochrome P450.

AERIUS (Desloratadine) – tabl. 5 mg, solution 0,5 mg/ml – high selective affinity to H1-receptors; strong effectiveness in the acute phase of the allergic inflammation; quick initial effect, coming after the 20-th minute in 68% of the treated; it is not cardiotoxic; it is influenced by the enzyme metabolic system cytochrom P450.

LORANO (Loratadin) – tabl. 10 mg – affinity to H1-receptors; no other medicament interactions; it is not used in children below 6 years old; the duration of use must not be more than 6 months; it has light side effects of common character (dryness in the mouth, tiredness, insomnia, gastrointestinal problems).

TELFAS (Fexofenadin) – tabl. 120 mg – selective H1-antagonist; strong treating effect; non sedating; it is not combined with erythromycine and ketokonazole; has small side effects of common character.

Basic principals of treatment of allergodermatoses with non-sedating AH:

AH are used as a basic medicine in the treatment of some dermatoses. Particularly in URTICARIA, non-sedating H1-antagonists are of a basic significance. Using them with insignificant side effects and opportunity for prolonged use they are quite good for an effective treatment of Urticaria (Simons N. 2004, Monroe 2003). The lack of sedating effect gives an improvement of quality of life of the patients with Urticaria (Lachapelle JM 2006, Saidenari S. 2006).

Non sedating second and third generation AH have an excellent safety profile and this chooses them as a first line means of treatment of the different forms of Urticaria (Zuberbier T. 2005).

There is a statement (based on analyses), that shows better effect in the treatment of Urticaria with higher doses of AH up to 4 times over the recommended (Zuberbier T. et al 1996, Kontou-Fili K. 1989).

In acute urticaria, basically is used Loratadin, Cetirizin. In chronic idiopathic urticaria the choice of treatment with non-sedating AH is different - Cetirizin, Desloratadin, Fexofenadin, Levocetirizin, Loratadin – with increasing the dosage when necessary 4 times. There are announcements for a very good effect of Cetirizin in chronic urticaria (Zuberbier T. 1996) as well as Desloratadin (Monroe 2003, Ring J. 2001). The treatment of physical urticaria is successful when avoiding the stimuli, as well as

recommendation for use of Cetirizin (Zuberbier T. et al 2005). The treatment of cold urticaria includes mainly Loratadin, Desloratadin, Cetirizin. There are very good results using Desloratadin (Juhlin L. 2004), but in solar urticaria is better to use - Cetirizine, Fexofenadine, Loratadine (Zuberbier et al. 2005), urticaria due to pressure – with Zetirizin (Kontou-Fili K. 1998). In cholinergic urticaria a good therapeutic effect is received with Cetirizin, with increasing the dosage if necessary (Zuberbier et al 2005).

For the successful treatment of urticaria to be done a good choice of non sedating antihistamin medicament, having in mind the following moments:

- increased not wanted cardiac effects with Terfenadin, Astemizol - rare use of these medicaments (Lindquist M. 1997)

- which antihistamines are metabolized from the enzyme system of cytochrom P450 (Renwick AG. 1999).

- bigger opportunities for prolonged antihistamine therapy.

One of the three branches of therapeutic conceptions for the treatment of endogenous eczema is symptomatic and individualized treatment, adapted to the stage of the disease. Non-sedating AH are used in all the stages of the endogenous eczema: I stage – light, II stage – medium, IV – V – heavy, VI – too heavy.

Antihistamines stop or threaten the pruritus (Artic S. 2005). They help to stop the dead cycle “pruritus-excoriation-eczema-pruritus”. The good therapeutic effect, received at the end gives remarkable improvement of quality of life of the patients.

Wide use of non-sedating AH is marked by the good profile risk/ benefit.

Daily dose AH in endogenous eczema is individual, but most common mistake is – low daily dose in the beginning of the treatment. Recommended are the optimal daily doses.

More frequently there must be used non sedating AH, but in some cases – sedating AH (their sedating effect is commented as an additional effect in complicated cases of endogenous eczema).

Contemporary non-sedating AH of second and third generation have exclusively wide use in the treatment of allergodermatoses. They are medicaments of first line for the treatment of the different forms of urticaria and one of the basic medicaments for the treatment of endogenous eczema.

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