

## PREMEDICATION PROTOCOLS IN DENTAL PRACTICE IN ALLERGIC PATIENTS

Angelina Kisselova<sup>1</sup>, Adriana Krasteva<sup>2</sup>, Assya Krasteva<sup>1</sup>

1) Department of Imaging and Oral Diagnostic, Faculty of Dental Medicine, Medical University, 1 G. Sofiyski Blvd., Sofia 1000, Bulgaria

Medical Center "Detsko zdrave", 27-29 Ami Bue Str., Sofia 1000, Bulgaria

2) Department of Pharmacology and Toxicology, Faculty of Pharmacy, Medical University, 2, Dunav str. Sofia 1000, Bulgaria

### ABSTRACT

The problem with choosing a suitable pre-medication protocols before local anesthesia in dentistry in allergic patients is always discussed, as in the dental practice different schemes are already proven (3, 5). The propose of this communication is to share the experience on those pre-medication schemes in allergic patients during and outside pollen season.

**Key words:** Pre-medication protocols, allergic patients, dental anesthesia

### INTRODUCTION

To be considered safe, dental treatment (including usually local anaesthesia) needs some precautions which sometimes are neglected by dental practitioners. Obtaining a credible medical history is the first step, especially in allergic patients. An examination by an allergist and skin testing is needed. Based on this information a premedication

protocol will be administrated and this decision is repeatedly discussed by a number of bulgarian doctors (1, 2, 3, 4, 5, 6).

### THE AIM:

Our aim is to share the experience on those pre-medication schemes in allergic patients during and outside pollen season.

As in non-allergic patients, the premedication regimens in allergic people include the same medications however the difference appears in posology and treatment duration. It should be noted that in allergic patients anaesthetic dental procedures should be avoided during the pollen season, especially if they have had a former serious allergic reaction (4).

Two pre-medication schemes are proposed to reduce the risk of severe allergic reaction during a dental procedure.

**Table 1.** Premedication protocols in allergic patients with *negative skin testing* for hypersensitivity to local anaesthetics

Drugs		Premedication scheme
<b>H1 blockers:</b>		
Cetirizine hydrochloride (Zyrtec)	10 mg/ daily	5 days prior and 5 days after dental procedure
Levocetirizine hydrochloride (Xyzal)	5 mg daily	
Loratadine (Claritine, Roletra)	10 mg daily	
Desloratadine (Aerius)	5 mg daily	
Fexofenadine (Telfast, Ewofex)	120 mg/ 180 mg daily	
<b>H2 blockers:</b>		
Ranitidine hydrochloride (Ranitidine, Zantac)	300 mg daily	5 days prior and 5 days after dental procedure
Famotidine (Quamatel, Famotidine)	40 mg daily	
<b>Vitamins:</b>		
Ascorbic acid (Vitamin C)	1000 mg daily	5 days prior and 5 days after dental procedure
<b>Corticosteroids:</b>		
Prednisolone tabl.	4 x 5 mg daily	5 days prior and 5 days after dental procedure

\*The suggested protocols are adapted for children older than 6 years.

**Table 2.** Premedication protocols in allergic patients with *positive skin testing* for hypersensitivity to local anaesthetics

Drugs		Premedication scheme
<b>H1 blockers:</b>		
Cetirizine hydrochloride (Zyrtec)	10 mg/ daily	7 days prior and 7 days after dental procedure
Levocetirizine hydrochloride (Xyzal)	5 mg daily	
Loratadine (Claritine, Roletra)	10 mg daily	
Desloratadine (Aerius)	5 mg daily	
Fexofenadine (Telfast, Ewofex)	120 mg/ 180 mg daily	
<b>H2 blockers:</b>		
Ranitidine hydrochloride (Ranitidine, Zantac)	300 mg daily	7 days prior and 7 days after dental procedure
Famotidine (Quamatel, Famotidine)	40 mg daily	
<b>Vitamins:</b>		
Ascorbic acid (Vitamin C)	1000 mg daily	7 days prior and 7 days after dental procedure
<b>Corticosteroids:</b>		
Prednisolone tabl.	4 x 5 mg daily	5 days prior and 5 days after dental procedure 1 hour prior the dental procedure
Methylprednisolone sodium succinate (Solu-Medrol)	40-60 mg IM (according to patients body weight)	

\*The suggested protocols are adopted for children older than 6 years.

## CONCLUSION

A precaution must always be taken during the dental treatment of allergic patients in order to achieve satisfactory results by avoiding serious allergic reaction or even anaphylactic shock.

## REFERENCES:

1. Djerasi, E., B. Petrunov. Alergologichni problem v stomatologijata. - publisher medicina i fiskultura, Sofia, 1990, 245. (in Bulgarian)
2. Kisselova-Yaneva, A. Lokalni uslojnenija i inzidenti pri prilagane na lokalni anestetizi. Godishen sbornik na IMAB, 2002, 8(1):76-77. (in Bulgarian)
3. Kisselova-Yaneva, A. Stomatologichna alergologia i ognistna diagnostic. Monograph, publisher "Gutenberg", Sofia, 2001, 327. (in Bulgarian)
4. Mileva, J. Klinichna alergologia ( in bulgarien). Book, publisher "Znanie", Sofia, 2001. (in Bulgarian)
5. Petrunov B., A. Kisselova-Yaneva, V. Dimitrov et al. Klinichna imunologija, klinichna alergologija, dentalna klinichna alergologija. Book, publisher "Arso", Sofia,., 2009. (in Bulgarian)
6. Mileva, J. Savremeno lechenie na alergichnite bolesti. Book, publisher "Znanie", Sofia, 1999. (in Bulgarian)

### Address for correspondence:

Angelina Kisselova  
Department of Oral imaging and oral diagnostic, Faculty of Dental Medicine,  
Medical University - Sofia  
1, Sveti Georgi Sofiiski Blvd., 1000 Sofia, Bulgaria  
E-mail: [prof\\_kisselova@yahoo.com](mailto:prof_kisselova@yahoo.com)