

## A SURVEY OF LOCAL ANESTHETIC AGENTS USED BY BULGARIAN DENTAL PRACTITIONERS

Kirova D, Hr. Lalabonova, D. Dobрева  
 Department of Oral Surgery  
 Faculty of Dentistry, Medical University - Plovdiv

### ABSTRACT:

We examine what anesthetic agents, from those currently available for this purpose, are preferred in dental practice and are used in patients with arterial hypertension. Data were gathered by questionnaires which required information about the age, sex, specialty and place of work of dental practitioners; it also included questions about blood pressure measurement prior to dental treatment and subsequent selection of the anesthetic agent to be used according to the obtained value. The most preferred anesthetic agent was found to be ubistesine. Most of the respondents (77.73%) tend to take the patient's blood pressure if there is a history of hypertension and the most frequently used anesthetic in such cases was lidocaine.

**Key words:** local anesthesia, hypertension, dental practitioners survey

### INTRODUCTION:

Local anesthetics are a must in the daily routine of dental practitioners. They are used to fight the pain that is concomitant with most dental procedures.<sup>1,2</sup> The dental material market offers a great variety of these drugs from which the dental practitioner can choose. Application of each of these anesthetic drugs is dependent to a great degree on the purpose of its use, the content of corrigent in it and the condition of the patient.<sup>1-4</sup> The aim of the present study was to establish the preferred anesthetic drugs by Bulgarian dental practitioners and to find how it is applied in cases of hypertensive patients.

### MATERIAL AND METHODS:

The present study included 220 dental practitioners. Our data were collected by direct group questionnaire survey. The anonymous survey was conducted in June and October 2003 and in March and April 2004. A questionnaire was specially prepared with questions about the gender, years in dentistry, location of dental practitioner's surgery, anesthetic drugs used, blood pressure measurement, and use of local anesthetics in hypertensive patients. Statistical analysis of the data was performed using alternative analysis.

### RESULTS AND DISCUSSION:

In our study sample we had 161 (73.18%) women and 59 (26.82%) men. The distribution by years in dentistry was as follows: 45 (20.45%) had up to 10 years of dental experience, 74 (33.63%)—up to 20 years and 101 (45.92%) practitioners had over 20 years of work as dentists. The practitioners with more than 20 years of service predominated. Predominant number of practitioners also had one or more specialties - 148 (67.28%). These data are presented in Tables 1 and 2.

**Table 1.** Years in dentistry

Up to 10 years	Up to 20 years	Over 20 years	Total
45	74	101	220
20.45	33.64	45.91	%
6.01	5.49	4.96	Sp

**Table 2.** Specialty

General dentistry	Oral surgery	Other specialties	Without specialty	Total
98	4	43	75	220
44.55	1.82	19.55	34.09	%
5.02	6.68	6.05	5.47	Sp

Most of the general practitioners in our study (120) practised in residential areas with more than 100 000 residents, 85 worked in towns of up to 100 000 residents, and just a small part of the respondents (15) worked in villages.

We assessed the use of the following anesthetic

drugs: xyloclon (all types) ultracaine, ubistesine, lidocaine, and scandonest. Ubistesine was found to be the most preferred anesthetic drug indicated by 115 of the respondents, followed by ultracaine – indicated by 95 practitioners, then scandonest – 79, lidocaine – 46 and xyloclon green – 43 practitioners. The results are shown in Table 3.

**Table 3.** Preferred anesthetic drug

Ubistesine	Ultracaine	Scandonest	Lidocaine	Xyloclon (green)	Total
115	95	79	46	43	220
52.27	43.18	35.90	20.90	19.54	%
4.66	5.08	5.39	5.99	6.04	Sp

Hypertension being a high incidence disease in this country, is the disease that also affects many of the dental patients. These patients have to have their blood pressure taken just before being given the anesthetic drug. The answer of most of the respondents (171) to the question whether they take the blood pressure before giving the local anesthesia was that they did this only if the patient had a history of hypertension. Other respondents (16) said they measured the blood pressure of all patients, and 33 general practitioners said that they did not measure the blood pressure. These data are presented in Table 4.

**Table 4.** Blood pressure measurement

Take blood pressure when there is history of hypertension	Take blood pressure in all patients	Do not take blood pressure	Total
171	16	33	220
77.73	7.27	15	%
3.18	6.49	6.22	Sp

What anesthetic drug is used depends on the partic-

ular condition of the hypertensive patients. Our survey has shown that the most preferred drug is lidocaine indicated by 98 dental practitioners. Fewer dentists stated that their preferred anesthetic was xyloclon (75); ubistesine was indicated by 53 general dental practitioners (Table 5).

**Table 5.** Preferred anesthetic drug in hypertensive patients

Lidocaine	Xyloclon (green)	Ubistesine	Total
98	75	53	220
44.55	34.09	24.09	%
5.02	5.47	5.87	Sp

### CONCLUSION:

The most preferred anesthetic by Bulgarian dental practitioners is currently ubistesine because of its anesthetic effect and low concentration of the corrigent adrenaline. The active approach to the patients with hypertension is demonstrated by taking their blood pressure before anesthesia is administered and by the use of anesthetics without corrigent which has a direct effect on this hemodynamic parameter.

### REFERENCES

1. Белчева А, П. Узунов. Фармакология. Знание, Стара Загора, 1996, 391с.
2. Влахов В, Н. Бакрачева, Е. Гачев. Клинична фармакология. Медицина и физкултура, София, 1993, 230 с.
3. Полихронов Н. и съавт. Учебник по пропедевтика на стоматологичната и лицево-челюстна хирургия. София, 1999, 26-49.
4. Начев Н. и съавт. Физиология. Медицина и физкултура, София, 1989, 326-31.

### Address for correspondence:

Hristina Lalabonova, PhD, MD  
 Department of Oral Surgery, Faculty of Dentistry  
 Medical University-Plovdiv  
 24 , Veliko Tarnovo Str., 4000 Plovdiv, Bulgaria  
 Mobile: +359/888 608 406; e-mail: lalabonova@abv.bg