

clinical effectiveness of the treatment, reducing the time of disappearance of the main symptoms of the disease by 2 times, compared with the control group of patients (without the use of the drug "Polycatan"), in patients with chronic catarrhal gingivitis and chronic generalized periodontitis of moderate severity; by 1,7 times, in comparison with the control group, in patients with chronic generalized periodontitis of moderate severity. Six months after the therapy, remission was achieved in 100% of cases in patients with chronic catarrhal gingivitis, in 94.12% of cases in patients with chronic generalized periodontitis of mild severity, in 91.3% of cases in patients with chronic generalized periodontitis of moderate severity. The use of the preparation "Bischofite and Tizol" gel" on the 1st, 7th, 30th day of the observations contributed to the activation of the regenerative process of periodontal tissues.

Thus, the use of natural minerals containing magnesium (bischofite) both in native form and in combination with modern penetrators allows efficient

use of bischofite in dental practice for the treatment of periodontal pathology.

BIBLIOGRAPHY

1. Clinical efficacy of gel polycatan in combination with lincomycin in the treatment of inflammatory periodontal diseases / Temkin E.S., Matveeva N.I., Salyamov K.Yu., Sysuev B.B. // Electronic collection of scientific papers "Health and Education in the XXI Century" №1 2010, volume 12. - P. 42-44.
2. Study of pharmacological activity of magnesium-containing gel "polycatan" on the experimental model of traumatic stomatitis / Spasov A.A., Mazanova L.S., Temkin E.S., Abakumova T.A., Sysuev B.B. // Bulletin of OSU. 2006. № 12. Appendix Bioelementology. - P. 238-240.
3. Microbiological efficacy of polycatan gel in combination with lincomycin in the treatment of inflammatory periodontal diseases / Matveeva N.I., Temkin E.S., Salyamov K.Yu., Sysuev B.B. // Journal of Scientific Articles "Health and Education in the XXI Century", 2011. V. 13. № 3. - P. 361-362.

INTERMAXILLARY CORRESPONDENCE COEFFICIENT IN PEOPLE WITH PHYSIOLOGICAL OCCLUSION AND VARIOUS FACE TYPES

**V.A. Zelensky¹, D.A. Domenyuk¹, E.Yu. Rusakova²,
A.A. Dolgalev¹, B.B. Sasuev¹**

¹ Stavropol State Medical University, Stavropol, Russian Federation

² Far Eastern Federal University, Vladivostok, Russian Federation

Features of the structure of the dental arches and the relationship between their main parameters have been of interest to morphologists and dentists for many decades. Numerous methods of investigation have been proposed and the main parameters of dental arches have been determined taking into account sexual and racial features. Interrelations of sagittal and transversal sizes of dental arches are shown. At the present time odontometric data are analyzed in sufficient detail and linear parameters of the lower dental arches are shown in people with dolichognathic, brachygnathic and mesognathic forms of dental arches

with their normo-, macro- and microdontism. However, there is insufficient information in the literature on the relationship between the main parameters of the dental arches of both jaws in people with different types of face, the intermaxillary compliance coefficients are not indicated, that was the purpose of this study.

Morphological and clinical examination of 65 people, aged 18–25, with physiological occlusion and macrodontism of permanent teeth was carried out. The main indicator of the dental arches belonging to the gnathic type was the dental index of dental arches, calculated as the ratio of 7 teeth of each half of the dentition in the width of the dental arch between the second molars. With the mesognathic type of dental arches, the value of the index was 0.94 ± 0.03 . The index value of less than 0.9 corresponded to brachygnathia, and more than 0.97 – to dolichognathia. Macro-dental type included dental arches, the length of which exceeded 118 mm. Transversal dimensions were determined between the points located on the vestibular distal tubercles of the second permanent molars. In the region of canine teeth, the distance between their tearing tubercles was measured. The diagonal of the arch was measured from the interincisal point to the second molars. The depth of the arch was measured from the interincisal point to the line connecting the vestibular distal odontomers of the second molars. The ratio of transversal, sagittal and diagonal sizes of dental arches was determined and the relationship of dental parameters was evaluated.

The results of the studies showed the interrelation of the sizes of macrodental dental arches of the upper and lower jaw. Dimensions of the teeth are large, and the sum of the width of the crowns of 14 teeth in people with macrodental mesognathic types of dental arches was: on the upper jaw – 120.91 ± 2.92 mm, on the lower jaw – 112.42 ± 2.79 mm. The length of macrodental brachygnathic dental arches was: on the upper jaw – 122.81 ± 2.98 mm, and on the lower jaw – 114.69 ± 2.89 mm. Dolichognathic macrodental types of dental arches, according to odontometry, also did not differ significantly from other gnathic forms of dental arches. The sum of mesial-distal dimensions of 14 teeth was: on the upper jaw – 121.01 ± 2.93 mm, on the lower jaw – 114.1 ± 2.87 mm.

Dimensions of dental arches in the transverse direction had features depending on their gnathic type. In people with mesognathic macrodental types of dental arches, the width of the anterior part of the dental arch of the upper jaw was 37.78 ± 1.21 mm, the inter-canine distance on the lower jaw was 28.15 ± 1.17 mm. The ratio of these dimensions of the upper jaw to the lower one was 1.34 ± 0.03 . The width of the arch between the second molars of the upper and lower jaws was 64.78 ± 1.84 mm and 58.89 ± 1.92 mm, respectively. The ratio factor was 1.1 ± 0.01 . The depth of the dental arch of the upper jaw is greater than the lower one and makes 46.95 ± 1.54 mm and 44.14 ± 1.22 mm, respectively. Frontal canine diagonal on the upper jaw is 21.47 ± 0.44 mm, at the lower jaw – 16.44 ± 0.51 mm. The front-molar diagonal was: on the upper jaw – 57.03 ± 0.63 mm, on the lower jaw – 53.04 ± 1.02 mm. Brachygnathic macrodental types of dental arches differed from mesognathic dimensions in the transversal and sagittal directions. The width of the dental arches is larger in the region of the molars and was: 71.31 ± 2.03 mm on the upper jaw, 64.82 ± 2.24 mm on the lower jaw. For dolichognathic forms, a decrease (in comparison with other types of dental arches) of transverse dimensions is typical, and were 60.87 ± 2.38 mm and 55.34 ± 1.97 mm for the upper and lower jaws, respectively.

CONCLUSION. As a result of morphometric studies of linear parameters and dental indicators of macrodental dental arches, intermaxillary relationships of sizes were established. For all gnathic types of macrodental dental arches, the ratio of the sum of the width of the crowns of the 14 teeth of the upper jaw to those of the lower jaw is, on average, 1.065 ± 0.005 . The ratio of the half sum of the width of the crowns of 14 teeth to the size of the front-distal diagonal is 1.065 ± 0.005 on both jaws. The ratio of the width of the dental arch of the upper and lower jaw is 1.1 ± 0.01 , regardless of the type of dental arches. The obtained information

can be used in anatomy to determine the correspondence of the main dimensions of the dental arches of the upper and lower jaws, for physiological occlusion characteristics. In addition, the obtained information on the relationship between the dimensions of dental arches can be useful in clinical dentistry for predicting the shape and size of dental arches in the treatment of patients with dentoalveolar anomalies.

REFERENCES

1. **HUGOSON A.** Oral health in 1000 individuals aged 3–70 years in the community of Jonkoping, Sweden // *G. Koch // Swed. Dent. J.* – 2002. – V.3. – P.69–87.
2. **HOLM A.K.** A comparative study of oral health as related to general health food habits and socioeconomic conditions of 15–35-years-old Swedish // *Community Dent. Oral Epidemiol.* – 2005. – V.3. – P.34–39.
3. **RUSAKOVA E. YU., ZELEZNY P. A.** The state of factors of local immunity of the oral cavity in the process of complex orthodontic treatment // *Pacific Medical Journal* – 2013. – №1. – C. 26–28.

CORRELATION OF THE DEPTH OF THE FRONTAL PART OF THE DENTAL ARCH WITH ODONTOMETRIC PARAMETERS AND INTERCANINE VALUES

V.A. Zelensky¹, I.V. Zelensky¹, E.Yu. Rusakova², D.A. Domyuk¹

¹ *Stavropol State Medical University, Stavropol, Russian Federation*

² *Far Eastern Federal University, Vladivostok, Russian Federation*

The effect of tooth size on the depth of the dental arch in the anterior, posterior regions, as well as at different age periods was shown in the studies of domestic and foreign experts. The works of Korkhaus show that the depth of the anterior part of the dental arch is determined by the size of the teeth. The results of the study are presented in the form of a table showing the sum of the width of the crowns of the four upper incisors and the depth of the dental arch to the level of the horizontal line connecting the Pont points