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DETECTION OF BONE DENSITY OF PARANASAL SINUSES IN WOMEN WITH DIFFERENT LEVEL OF SEX HORMONS

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Background and objectives. The course of menopause transition (MT) is associated with peculiarities of alterations occurring in a woman's body, in particular, in the structure of bone tissue. Considering that bones of the paranasal sinuses (PNSs) play a natural defense role against the spread of dental infection , their structure is important in dentistry. This study was aimed to determine bone density of walls of PNSs in women with different level of dehydroepiandrosterone 3-sulfate (DHEAS) during MT using CT examination. **Methods.** Cross-sectional associations were examined between the bone density of PNSs assessed by Spiral Computed Tomography (SCT) and the serum content of testosterone and DHEAS in 113 women of perimenopausal age (ranged from 45 to 55 years old), who had already experienced premenopausal menstrual decline (amenorrhea more than 3 month, for less than 2 years). **Results.** Under physiological conditions, the lowest density of bone tissue was determined in the group of women with a minimum level of DHEAS in the age group older than 50 years (120 ± 12 HU). Maximum densitometric indices were detected in young people (240 ± 21.3 HU). The bone density in women over 55 years of age with a high level of androgens was almost equal to that in the control group (225±19.3 HU and 199±13 HU, respectively). Strong positive (r = 0.73) correlation between minimal bone density of maxillary sinus in women with level of DHEAS was detected. It is important to note, that the correlation between minimal density of the lower wall of frontal sinus is a weak positive (r = 0.3). **Conclusion.** The level of male sex hormones, being a marker of changes associated with menopause in women, was found to have a significant effect on bone density of PNS.

Key words: computed tomography, paranasal sinuses, DHEAS, bone density