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DENTAL CARIES AMONG PREGNANT WOMEN LIVING IN VARIOUS ENVIRONMENTAL CONDITIONS IN UZBEKISTAN

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Abstract:

Dental diseases among the population are an important medical and social problem, since the prevalence of these diseases is always in the first position among all human diseases [2, 3, 4, 6, 7, 8].

Introduction

Dental diseases are one of the important parts of extragenital diseases among women of fertile age, especially pregnant women. It was found that 99% of pregnant women suffer from diseases of the hard tissues of the teeth, 79% from periodontal diseases, 95% of pregnant women need therapeutic and 91% orotopedic stomatological care [1, 5].

Taking into account the fact that the development of dental diseases, in particular dental caries, is influenced by various exogenous factors, including environmental ones, it is important to give a comparative assessment of the detectability of dental caries in regions with different climatic, geographical and environmental conditions.

In this regard, the purpose of our study was to study the prevalence, structure and intensity of dental caries among pregnant women living in various environmental conditions - in Urgench and Kibray districts of the republic.

Materials and methods. Pregnant women living in Urgench district of Khorezm region and Kibray district of Tashkent region were taken as the object of study. Both districts are typical suburban areas in terms of their geographical, socio-medical characteristics, where the level of medical care is close to urban, but differ in environmental characteristics.

A total of 1,012 pregnant women in Urgench district and 980 in Kibray district aged 16-49 years in various stages of pregnancy were studied.

All the pregnant women studied were divided into the following age categories: under 20 years old, 20-29 years old and 30 years and older. In addition, the surveyed contingent was divided by the

number of births into first-time pregnancies (mainly women under 20 years old); repeat pregnancies (mainly women from 20 to 29 years old); high-cost (mainly women 30 years old and older who had 3 pregnancies or more).

The examination of pregnant women was carried out according to the unified methodology of the Central Research Institute, taking into account WHO recommendations (Geneva, 1989). The prevalence and intensity of dental caries lesions were determined.

The prevalence of dental caries is the ratio of the number of persons with at least one of the signs of dental caries (carious, filled, removed - CP) to the total number of examined, expressed in %.

The intensity of dental caries is the sum of the clinical signs of carious lesion (KPU) calculated individually for one or a group of examined patients. The following indexes are used to evaluate this indicator:

- CPI index (H) - the sum of carious (K), filled (N) and removed teeth (Y) in one examined person;
- KPU index (p) the sum of all surfaces of teeth with diagnosed caries and teeth filled in one individual (if the tooth is removed, it is considered to be 4 or 5 surfaces).
- the average value of the CPU(z) and CPU(n) indices in the group of examined is the ratio of the sum of the values of the CPU(z) and CPU(n) indices for each surveyed person to the number of people in the surveyed group.

Using the CPI index, it is impossible to take into account the initial stages of carious lesions - focal demineralization of enamel, therefore, when determining the level of health, it is necessary enamel demineralization was taken into account.

Research results and discussion. Examination of pregnant women living in Urgench district and Kibray district showed that in each of them the most common dental disease is dental caries and its consequences.

As can be seen from the table, the prevalence of dental caries among pregnant women living in Urgench district is 1.2 times higher than among pregnant women in Kibray district (p 0.01). The same pattern is observed among pregnant women of different ages, depending on the region of residence.

At the same time, a general pattern was revealed in the prevalence of dental caries among pregnant women in both regions - dental caries increases with age. Among pregnant women under the age of 20, dental caries was registered in Urgench district in 90.3±2.1%, Kibraisk in 76.7±4.4% of cases. In the next age group of pregnant women (20-29 years old), the incidence of dental caries increased by 4.1% and 3.1%, respectively. Among pregnant women over 30 years of age, the prevalence of dental caries is higher than in previous ages in both Urgench and Kibray districts and amounted to 98.2±1.7% and 81.4±2.7%, respectively (p□0.01).

In general, the prevalence of dental caries among pregnant women tends to increase with an increase in the order of pregnancy. In Urgench district, the prevalence of dental caries among pregnant women was 11.7% higher compared to pre-pregnant women, whereas for women living in Kibray district, this difference was 1.5 times lower and amounted to 7.6%. The level of this indicator depends not only on the serial number of pregnancy, but also on other factors, in this case, on the region of residence.

As can be seen from the table, the CPI index in pregnant women varies greatly depending on the age and order of pregnancy. Among women under the age of 20 years of age, the intensity of dental caries damage during subsequent pregnancies increased by an average of 1.3 times in both regions of the study.

Among older pregnant women, the indicator changed with a slightly different pattern. Among high-priced women aged 30 years and older living in the Urgench district, the CPI index is 1.4 times higher than among the first-time pregnant, whereas among the same contingent of women living in the Kibray district, this indicator was 1.6 times higher than among the first-time pregnant. The CPI index for repeat pregnancies in Urgench and Kibray districts is 9.78 and 7.93, respectively, whereas for high-priced women in the same regions, the level of this indicator was 12.06 and 9.96, respectively ($p<0.01$).

A more detailed analysis of the incidence of carious teeth in pregnant women in two regions showed that with each pregnancy, the number of teeth affected by caries increases. It should be noted that the highest proportion of non-sealed teeth at the initial examination were women who had become more expensive (38.3□1.1% in Urgench and 23.5□0.9% in Kibray districts). Of the total number of carious teeth, the lowest percentage of sealed teeth was found in pregnant women (42.5□1.2%) compared with repeat pregnant women (53.7□1.3%) and pre-pregnant women (75.2%□1.5%).

It should be noted that among the high-priced women living in the Urgench district, these indicators were slightly higher than among the same contingent living in the Kibrai district ($p<0.01$).

If we take into account the total number of carious and missing teeth and, together with it, teeth of antagonists who automatically lose their chewing functions, then we can imagine what volume dental care is necessary for pregnant women at various stages of pregnancy.

Of the total population surveyed, 95.0% in Urgench district and 80.0% of pregnant women in Kibray district needed therapeutic dental care, and 87.3% and 65.0% of pregnant women, respectively, needed orthopedic care.

Conclusions:

1. Dental caries is detected more often among pregnant women with increasing age ($p<0.01$), regardless of the region of residence.
2. The prevalence of dental caries among women increases with an increase in the ordinal number of pregnancy, this indicator also depends on the place of residence of pregnant women.
3. The intensity of dental caries is also 1.3 times higher among pregnant women living in an ecologically disadvantaged area than among pregnant women living in a relatively ecologically prosperous area.
4. Common patterns have been identified for both regions: the prevalence and intensity of dental caries increase with age, with each subsequent pregnancy.

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