

DIAGNOSTIC ASPECTS OF LEUKOPLAKIA

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Abstract. Leukoplakia is chronic disease of the oral mucosa characterized by growing number of patients every year, and unsatisfactory results of treatment. A persistent clinical course is typical for this disease of oral mucosa, and it tends to malignancy in 20-30% of cases. 27 patients with various forms of leukoplakia were examined at the Department of Therapeutic Dentistry of the Tashkent State Dental Institute clinics. Analysis of background processes preceding the occurrence of oral mucosa cancer showed that certain forms of leukoplakia transform into a malignant process and are represented by a highly differentiated form.

Keywords: oral mucosa, leukoplakia, hyperkeratosis, diagnostics

Leukoplakia of the oral mucosa becomes actual issue in modern dentistry due to the fact of growing number of patients every year, and unsatisfactory results of treatment. A persistent clinical course is typical for this disease of oral mucosa, and it tends to malignancy in 20-30% of cases. Long-term conservative treatment often does not guarantee patients full recovery, and the surgical methods'



use is not always possible due to the complexity of the anatomical structure of the oral cavity and the prevalence of the pathological process. (C. Aquilina et al - 2003; M. Bocor-Bratic-2003; I. Ishii et al - 2003; V. Prass et al - 2005) The frequency of relapses according to some authors varies from 7 to 40% (J. Ishii et al-2003).

The object of the research was to investigate the various methods of diagnostics of individual forms of leukoplakia of oral mucosa, taking the characteristics of the clinical and morphological manifestations of the disease into account.

Materials and methods of the research. We examined 27 patients (16 men, 11 women) aged 48 years old, suffering from various forms of leukoplakia, who applied to the Department of Therapeutic Dentistry of the Tashkent State Dental Institute clinics. The clinical and laboratory examination methods were carried out. We studied anamnesis of the disease, the state of the oral mucosa, the duration of the disease, its shape, size and location determined. Among the laboratory studies, we used cytological or histological studies, using light microscopy. The morphological study of the material made it possible to obtain information not only about the structural features of leukoplakia, but also contributed to the establishment in the epithelial tissue of cellular and nuclear polymorphism, the degree of chromatin staining intensity, the determination of the nuclear-cytoplasmic ratio, and mitotic activity.

Results of the research. To define the forms of leukoplakia we used classification, proposed by Mashkilevson. Flat or simple form of leukoplakia was diagnosed in 63.3%, verrucous form was in 27.5% and erosive form was in 9.2% of cases. Detailed study distribution patients on age and gender with regard to clinical manifestations disease shows, that simple form of leukoplakia most often affects patients aged from 20 to 40 years, in that time, as verrucous and erosive forms prevail among men after 40 years. Study distribution patients with regard to localization disease oral mucosa revealed, that the most often leukoplakia



was determined in areas of cheeks and less often in areas of cavity bottom tissue, tongue and bottom lips. Distribution of various forms of leukoplakia on individual anatomical sites oral mucosa revealed, that flat form of the disease equally often strikes all sites cavity mouth, whereas verrucous and erosive form, usually, is localized in areas of cheeks and language. Study of anamnesis data, previous appearance of leukoplakia of oral mucosa, gave possibility to claim that 26.2% patients identified that first signs of the disease, such as presence of chronic injuries oral mucosa. In 39.2% of cases, there was excessive use of NAS and smoking. From general number of surveyed patients, in 47.6% cases there were following comorbidity: chronic disease of gastrointestinal tract, vascular violations, endocrine disease and so on, noted. First symptoms of the disease were white plaques on oral mucosa, surrounded by thin hyperemic ring, also patients always noticed the feeling of burning. Clinically at simple form of leukoplakia of oral cavity, the presence of white spots in form of limited sites was determined. They not towered over surrounding cloth and had various shades. At verrucous form of leukoplakia affected plot reminded dense greyish color plaque, surface of which was bumpy, but fold in individual cases, there were picture of expressed hyperkeratosis determined. Usually, crack and erosion practically weren't found in flat and verrucous forms, at that time as they were integral part of erosive form of leukoplakia. For cytological research of erosive surface we took smear-imprint on substantive glass. Smear was stained by Papanikolau. Histological study of simple form of leukoplakia revealed, that disease maybe characterized, as hyperplastic, chronic inflammation, in which identifies sites of metaplasia. At this, in all cases of hyperplastic process, as and methaplasia epithelium, constantly it was accompanied by expressed process of keratinization, with alternation hyper- and parakeratosis zones. Acanthosis of cells was emphasized in those cases, when keratinization bore nature of parakeratosis. Inflammatory reaction in sub tissues were usually not determined. Grainy layer mucosal shell consisted from significant number series

cells appeared in verrucous form. Especially often grainy layer was emphasized in those places, where hyperkeratosis was determined. Here cells contained large grain keratohyaline. In individual cases significant acanthosis was noted, it was accompanied by significant elongation and extension epithelial outgrowths. In connective tissue stroma was affected oral mucosa determined diffuse chronic inflammation with expressed lymphoplasmatic reaction. Not often there were noted presence in nuclei 2-3 nucleoluses and row violation of cells location. Rarely atypical mitosis was identified. In erosive form of leukoplakia, we also noted thickening of epithelial layer, basically for account of increase of basal layer. In some cases epithelial strands deeply penetrated in connecting tissues, on circle which had place round cell infiltration.

It is necessary to note that disconnection of spiky cells layer and cellular atypia especially were expressed in erosive form of leukoplakia. Here inflammatory reaction in stroma reached maximum, whereas at simple form of leukoplakia, inflammatory reaction was expressed considerably less. So, received data showed, that at all forms of leukoplakia determined significant degenerative changes in basal layer and phenomenon of acanthosis. However, appearance of long epithelial cords, with expressed atypia of cells points on tendency to malignant process. Clinically at these patients presence of erosion and expression of expressed pain syndrome were noted. On circle of leukoplakia tight infiltration was palpated, but anchor elements in the center. This picture revealed that flat form of leukoplakia was in 5.2%, verrucous was 18.7% and of erosive form was 37.5% of cases.

Conclusions. Analysis of background processes preceding the occurrence of oral mucosa cancer showed that certain forms of leukoplakia transform into a malignant process and are represented by a highly differentiated form. An in-depth study of the clinical and morphological manifestations of leukoplakia of the oral mucosa showed that the initial signs of malignancy in a simple (flat) form of

leukoplakia were detected only in 5.2%, verrucous leukoplakia was in 18.7%, and erosive cases were in 37.5% of cases. This picture is mainly observed in male patients, with duration of leukoplakia of more than 6 months, who have anamnesis of chronic injuries of the mucous membrane, are heavy smokers and drink alcohol intensively.

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