

**CLINICAL COURSE OF PERIODONTAL DISEASES IN HIV-INFECTED PATIENTS AND DENTAL MANAGEMENT APPROACHES****Usmonova Mukhlisa Foziljon kizi**Department of Medicine, Faculty of Medicine,  
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**Abstract:** This study evaluated the clinical course of periodontal diseases in HIV-infected patients and assessed the relevance of a comprehensive dental approach. The study was conducted at the Namangan Regional Dental Polyclinic and included 40 HIV-positive patients. Clinical periodontal assessment showed that moderate and severe forms predominated, accounting for 70.0% of all cases. The most frequent clinical findings were bleeding on probing (80.0%), periodontal pockets  $\geq 5$  mm (65.0%), tooth mobility (40.0%), and gingival recession (35.0%). The findings indicate that periodontal diseases in HIV-infected patients tend to progress aggressively and require early diagnosis, continuous monitoring, and individualized комплексное treatment.

**Keywords:** HIV infection, periodontal disease, periodontitis, dentistry, oral manifestations

### 1. Introduction

Human immunodeficiency virus (HIV) infection remains a major public health challenge because of its systemic consequences and its impact on oral health. Oral lesions are often among the earliest and most clinically visible manifestations of immunodeficiency. Periodontal diseases are particularly important in this context because they not only reflect local inflammatory destruction but may also indicate systemic deterioration of immune status. Several authors have emphasized that HIV-associated periodontal conditions tend to be more severe, more rapidly progressive, and less predictable in their clinical course than similar lesions in immunocompetent individuals [1, p. 45; 2, p. 112].

The relationship between HIV infection and periodontal destruction is multifactorial. It involves impaired host defense, altered inflammatory response, changes in oral microbiota, and reduced reparative potential of periodontal tissues [3, p. 78]. Clinically, this may manifest as persistent gingival inflammation, rapid attachment loss, deep periodontal pockets, necrotizing lesions, and early tooth mobility. In practical dentistry, these features require not only timely recognition but also a modified treatment strategy that takes into account the patient's immunological background, oral hygiene status, and risk of secondary infection [4, p. 201].

Despite the growing body of literature, regional clinical data remain limited. In routine outpatient dentistry, there is still a need for descriptive clinical studies showing how periodontal diseases present in HIV-infected patients and which signs are most frequently encountered. Such data are valuable for improving early diagnosis and optimizing treatment tactics in everyday clinical practice.

The aim of this study was to evaluate the clinical course of periodontal diseases in HIV-infected patients and to assess the relevance of a comprehensive dental management approach based on the most common clinical findings.

### 2. Materials and Methods

This descriptive clinical study was carried out at the Namangan Regional Dental Polyclinic. A total of 40 HIV-infected patients with periodontal pathology were included in the study. All patients underwent a standard dental examination with special attention to periodontal status.

The clinical evaluation included bleeding on probing, periodontal pocket depth, tooth mobility, and gingival recession. Based on the clinical examination, patients were categorized into three severity groups: mild, moderate, and severe periodontal disease.

The data were analyzed using descriptive statistics. Absolute frequencies and percentages were calculated for categorical indicators. The emphasis was placed on the prevalence of major clinical manifestations and the distribution of disease severity. Since the study was descriptive in nature, the analysis focused on identifying the dominant clinical patterns observed in this patient population.

### 3. Results

The distribution of patients by periodontal disease severity demonstrated a predominance of moderate and severe forms. Mild disease was diagnosed in 12 patients (30.0%), moderate disease in 18 patients (45.0%), and severe disease in 10 patients (25.0%).

*Table 1. Distribution of periodontal disease severity in HIV-infected patients (n=40)*

Severity of periodontal disease	Number of patients	Percentage (%)
Mild	12	30.0
Moderate	18	45.0
Severe	10	25.0
Total	40	100.0

*Table note: Moderate and severe forms together accounted for 28 of 40 patients (70.0%), indicating the predominance of clinically significant periodontal destruction in the study group.*

A more detailed analysis of the clinical findings revealed a high prevalence of inflammatory and destructive periodontal signs. Bleeding on probing was recorded in 32 of 40 patients (80.0%), making it the most frequent manifestation. Periodontal pockets  $\geq 5$  mm were detected in 26 patients (65.0%), which means that nearly two-thirds of the examined patients had clinically significant pocket formation. Tooth mobility was present in 16 patients (40.0%), while gingival recession was noted in 14 patients (35.0%).

*Table 2. Main clinical periodontal findings in HIV-infected patients (n=40)*

Clinical finding	Number of patients	Percentage (%)
Bleeding on probing	32	80.0
Periodontal pockets $\geq 5$ mm	26	65.0
Tooth mobility	16	40.0
Gingival recession	14	35.0

*Table note: Bleeding on probing and periodontal pocket formation were the dominant findings, confirming the inflammatory-destructive nature of periodontal lesions in the examined HIV-positive population.*

The quantitative structure of the results also shows that moderate disease was 1.5 times more frequent than mild disease (45.0% vs. 30.0%) and 1.8 times more frequent than severe disease (45.0% vs. 25.0%). Importantly, the combined proportion of moderate and severe cases was 2.3 times higher than that of mild cases (70.0% vs. 30.0%). This ratio reflects the tendency toward more advanced periodontal involvement rather than early reversible disease.

In practical terms, four out of every five examined patients had bleeding on probing, approximately two out of three had periodontal pockets of at least 5 mm, two out of five had tooth mobility, and more than one-third had gingival recession. Such a distribution clearly indicates that periodontal disease in HIV-infected individuals is not limited to superficial inflammation but frequently progresses to structural periodontal damage.

### 4. Discussion

The obtained results demonstrate that periodontal diseases in HIV-infected patients are characterized by a predominance of moderate and severe clinical forms. From a clinical

perspective, this is important because it suggests that the periodontal process in HIV-positive individuals is often detected not at the earliest inflammatory stage, but after tissue destruction has already become clinically relevant. The finding that 70.0% of the examined patients had moderate or severe disease supports the concept of a more aggressive periodontal course in the setting of HIV-associated immune dysfunction [5, p. 63; 6, p. 91].

Bleeding on probing, observed in 80.0% of patients, reflects a high burden of active gingival inflammation. However, the concurrent presence of deep periodontal pockets in 65.0% of cases indicates that inflammation was frequently accompanied by loss of periodontal support. In other words, the disease pattern observed in this study was not limited to gingivitis-like changes but often involved deeper periodontal tissue destruction. This is clinically consistent with previously reported data on HIV-associated periodontal involvement, where rapid progression and poor tissue resistance are common features [7, p. 37].

Tooth mobility in 40.0% of patients and gingival recession in 35.0% further underline the chronic destructive component of the periodontal process. These findings suggest that a considerable proportion of patients had already developed structural consequences of prolonged inflammation. For the practicing dentist, this means that routine visual examination alone is insufficient. Comprehensive periodontal assessment with probing and mobility evaluation is necessary in all HIV-positive patients presenting with gingival complaints. The statistical pattern of the present study is also noteworthy. Moderate disease was 1.5 times more common than mild disease, while the combined prevalence of moderate and severe forms exceeded mild cases by more than twofold. Such a distribution has direct practical significance: it supports the need for an active rather than purely symptomatic dental strategy. Waiting until severe symptoms develop may result in delayed treatment, greater periodontal tissue loss, and more complicated rehabilitation.

From a clinical management perspective, the results of this study justify a comprehensive approach. Such an approach should include early periodontal screening, professional oral hygiene, local anti-inflammatory measures, correction of plaque-retentive factors, patient education, and regular follow-up. In patients with moderate and severe forms, treatment planning should be individualized, with particular attention to the risk of recurrence and progression. The dentist should also consider the broader systemic context of HIV infection and collaborate with other healthcare professionals when necessary.

## 5. Conclusion

Periodontal diseases in HIV-infected patients are characterized by a predominance of moderate and severe forms, which together account for 70.0% of all observed cases. The most frequent clinical manifestations are bleeding on probing (80.0%) and periodontal pockets  $\geq 5$  mm (65.0%), while tooth mobility (40.0%) and gingival recession (35.0%) indicate substantial periodontal tissue destruction in a considerable proportion of patients. These findings confirm that periodontal pathology in HIV-positive patients tends to follow a more aggressive and clinically significant course. Effective dental management should therefore be based on early diagnosis, detailed periodontal examination, continuous monitoring, and a comprehensive individualized approach aimed at preventing further progression and preserving oral function.

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