

Epidemiology Bulletin

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**AIDS: Oral Manifestations
and Management**

AIDS: Oral Manifestations and Management

There is an estimated one million Americans infected with AIDS (Acquired Immuno – Deficiency Syndrome) virus today. World Health Organization estimated a total of 40 million people worldwide will be infected by 2000. The number of AIDS cases and HIV (Human Immunodeficiency Virus) infections are increasing especially in heterosexual and perinatal transmissions.

Oral manifestations infections can be one of the first signs and symptoms of the HIV infections. It can be used to monitor the progression of the HIV infection and used as a clinical correlate of CD4 or T4 counts (Less the immunity, more the oral manifestations). Nearly one – third of the HIV infected individuals, those with AIDS will have oral manifestation at some point of the disease.

AIDS is the end stage of HIV infection. It is presumed those who are infected by the HIV will eventually contract AIDS.

The usual clinical course of the disease is the following: After a person becomes infected with the virus, he then develops antibody against the virus, (Usually between 6-12 weeks, but can take up to 6 months) those becoming HIV positive. This is the window period which the person is infective and sheds the virus, but undetectable. He can stay asymptomatic for a long period of time. The mean incubation period is 7 – 11 years. Eventually he becomes symptomatic, then progresses to AIDS.

Centers for Disease Control (CDC)'s definition of AIDS is strict. It is the following:

AIDS is a disabling or life – threatening illness caused by human immunodeficiency virus (HIV) characterized by HIV encephalopathy, HIV wasting syndrome, or certain diseases due to immunodeficiency in a person with laboratory evidence for HIV infection or without certain other causes of immunodeficiency.

The HIV has been isolated in many bodily fluids, saliva, vaginal secretion, semen, cerebrospinal fluid, urine, amniotic fluid, feces, blood, tear & breast milk. However, there are only three routes of transmission:

- 1) Sexual: homosexual & heterosexual
- 2) Blood: A) Intravenous Drug Abusers sharing infected needle.
B) Transfusion of blood & blood products (plasma, packed cells, platelets, & factor concentrates).
- 3) Perinatal: A) during pregnancy, intrapartum.
B) postpartum: via breast milk.

Over 85% of AIDS cases in the U. S. today are due to sexual or intravenous drug abuse (IVDA). The transmission is directly related to behavior. AIDS cases by exposure category reported in 1990 in U. S. :

Homo – /bisexual men	(56%)
IVDA	(24%)
Homosexual and IVDA	(5%)
Hemophilia	(1%)
Heterosexual contacts	(6%)
Transfusion recipients	(2%)
Other/Undetermined	(6%) *

* Includes patients under investigations:

patients who died, were lost to follow – up, or refused interview, and patients whose mode of exposure to HIV remains undetermined after investigations.

4.8% of AIDS cases involve health care workers (HCW), but 94% all have reportable non – work related risk factor. The risk of HCW to become infected is small. The risk of seroconversion after a percutaneous needlestick injury is estimated 1: 300.

AIDS cases are only on the tip of the iceberg. The remaining iceberg includes a vast numbers of clinical manifestations of HIV infections: neurological, dermatological, pulmonary, hematological, oral, etc.

Oral manifestations can be one of the first clinical signs and symptoms of HIV infection. There are five basic groups:

1. Fungal:
 - A) candidiasis: 1) pseudomembranous
 - 2) hyperplastic
 - 3) erythematous
 - 4) angular cheilitis
2. Viral:
 - A) Herpes Simplex
 - B) Hairy Leukoplakia
 - C) Herpes Zoster
 - D) Warts

3. Bacterial

- A) HIV – gingivitis
- B) HIV – periodontitis
- C) Necrotizing gingivitis and stomatitis
- D) Mycobacterium avium intracellulare

4. Neoplastic

- A) Kaposi sarcoma
- B) Lymphoma

5. Other

- A) Recurrent aphthous ulcers
- B) Immune thrombocytopenic purpura
- C) HIV – salivary gland disease
- D) Abnormalities of pigmentation

Treatment modalities

1. Anti – fungals:

- a. Topical: 1) nystatin
- 2) mycostatin
- 3) clotrimazole
- b. Systemic: 1) imidazole
- 2) triazole

2. Anti – viral:

- a. Acyclovir
- b. Ganciclovir

3. Anti – bacterial:

- at dental office
 - a. Debridement
 - b. Scaling and root planting
 - c. Irrigation (providone – iodine)
 - d. Maintenance at dental office
 - e. Good home care
 - f. Mouthrinse: chlorohexidine gluconate
 - g. Antibiotic therapy: Flagy1 as alternative

Anti – cancer:

- a. Debridement and prophylaxis at dental office
- b. Chemotherapy
- c. Radiation
- d. Surgery

One recent incidence involving one Florida dentist with AIDS infected five of his patients. (One patient had other risk factors). Centers for Disease Control studied this case extensively and concluded that mode of transmission remains unclear, but postulates that possibly he had:

1. Passed his blood during dental procedures to his patients, or
2. Poor infection control. His office had no infection control protocol and instruments are not always properly sterilized or disinfected.

This case brings up the importance of infection control and the proper protections for patients and health care professionals. The protocol used in the U. S. is universal precaution, which requires that blood and other specific body fluids of all patients be handled as if they contain blood – borne pathogens.

In summary, oral manifestations can be the first sign or symptom of the HIV infection. Oral examination is an important part of diagnosis and evaluation of AIDS. Because of the difficulties in detecting asymptomatic HIV infected individuals, as practitioners, we need to exercise meticulous infection control in treating patients. The HIV survives outside the body much shorter than Hepatitis B virus (HBV). With proper sterilization and disinfection one not only kills the AIDS virus but HBV as well to minimize any possibility of cross contamination in the health care setting.

Reported by: Judy C. Fan – Hsu, D. D. S.