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**Diagnosis of trichomoniasis vaginalis
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Drafting organizations of this standard. Institute of Parasitic Diseases, Zhejiang Academy of Medical Sciences, Chinese Center for Disease Control and Prevention, Institute of Parasitic Diseases, the Second Military Medical University of the Chinese People's Liberation Army, and the Jingning County Center for Disease Control and Prevention in Zhejiang Province.

1 Scope

This standard specifies the diagnosis basis, principles, diagnosis and differential diagnosis of vaginal trichomoniasis.

This standard applies to the diagnosis of vaginal trichomoniasis by medical institutions and disease prevention and control institutions at all levels across the country.

2 Terms and definitions

The following terms and definitions apply to this document.

Trichomonas vaginalis A flagella parasitic in the human genitourinary system, mainly in the female vagina and male urethra, can cause *Trichomonas vaginalis* infection or disease (see Appendix A).

Trichomonas vaginalis infection Microscopic examination of vaginal or prostate secretions and urine sediments revealed Trichomonas vaginalis trophozoites, but no corresponding clinical manifestations were found in infected patients.

Vaginal trichomoniasis Corresponding clinical manifestations appear in patients infected with Trichomonas vaginalis.

3.1 Epidemiological history

Have a history of sharing sanitary ware, or have a history of unsafe sex, or a sexual partner has a history of Trichomonas vaginalis infection, etc. (see Appendix B).

3.2 Clinical manifestations

3.2.1

The incubation period of vaginal infection is 4 to 28 days, and vaginal secretions increase greatly, which is foamy and smelly. Often cause itching of the vulva, Burning, painful intercourse, etc. Vaginal examination has tenderness, showing diffuse congestion and redness of the vaginal and cervical mucosa (see Appendix C, C.1).

3.2.2

Urinary tract infection may manifest as frequent urination, urgency, dysuria and other symptoms, and may be accompanied by local pain (see Appendix C, C.2).

3.2.3

Prostate infection can be manifested by burning urethra, increased nocturia, white turbid secretions dripping out of the urethra at the end of urination, and rectal bulging and so on (see C.3 of Appendix C).

3.3 Laboratory inspection

3.3.1

Trichomonas vaginalis trophozoites (see Appendix D, D.1) of vaginal or prostate secretions and urine sediments were found after direct smear microscopy.

3.3.2

Trichomonas vaginalis trophozoites of vaginal or prostate secretions and urine sediments were stained by smears and found (see Appendix D, D.2).

3.3.3

The vaginal or prostate secretions and urine sediments were cultured and stained with smears and microscopic examination revealed that Trichomonas vaginalis trophozoites (see Appendix D D.3).

4 Principles of diagnosis

Diagnosis is based on epidemiological history, clinical manifestations and laboratory test results.

5.1 *Trichomonas vaginalis* infection

No obvious clinical manifestations, and conform to any of 3.3.1, 3.3.2, and 3.3.3.

5.2.1 Suspected cases

Comply with any of 3.1 and 3.2.1, 3.2.2, and 3.2.3.

5.2.2 Confirmed cases

Suspected cases and meet any of 3.3.1, 3.3.2, and 3.3.3 at the same time.

6 Differential diagnosis

Should be differentiated from candidal vaginitis, bacterial vaginitis, bacterial urethritis, gonorrhea urethritis, etc. (see Appendix E).

Appendix A

(Informative appendix) Etiology A.1 Pathogen *Trichomonas vaginalis* belongs to the phylum Carnigoflagellate, Motoflagellate, *Trichomonas*, *Trichomonas*, *Trichomonas*.

A.2 Form

Trichomonas vaginalis has only a trophozoite stage. The live worms are transparent, refractive, and changeable. They move forward with the help of flagella and use a fluctuating membrane.

The wave action revolving movement. After hematoxylin or Ji's staining, it is pear-shaped or oval, with a size of $(7\mu\text{m}\sim 32\mu\text{m})\times(5\mu\text{m}\sim 12\mu\text{m})$, Four anterior flagella and one posterior flagella can be seen in the hair basal body. There are undulating membranes and basal staining rods at the anterior 1/2 of the outer body. There are deeply stained particles in the cytoplasm, it is a unique hydrogenosome of this worm. The worms seen in fresh secretions are mostly free of bacteria and food bubbles, but the worms contain a lot of bacteria and Starch granules.

A.3 Life history

The life history is simple. The trophozoites parasitize the human genitourinary system, mainly in the female posterior fornix and male urethra or prostate.

Two-split method or multi-split method of reproduction. The most suitable temperature for

survival and reproduction is 32°C~35°C, and the most suitable pH for survival and reproduction is 5.2~6.6.

Appendix B

(Informative appendix) Epidemiology B.1 Epidemic overview *Trichomonas vaginalis* infection is one of the most common sexually transmitted infections. There are about 180 million infected people worldwide, with the highest infection rate among women in the 20-40 year old age group.

B.2 Source of infection Patients with *Trichomonas vaginalis* infection or *Trichomonas vaginalis*.

B.3 Ways of transmission Spread through direct contact and indirect contact, the former is mainly through sexual transmission, and the latter is mainly through sharing sanitary ware and clothing and equipment.

B.4 Susceptible population the crowd is generally susceptible. Humans cannot form lasting immunity after infection, and they can still be infected repeatedly after being cured.

B.5 Popular factors

Trichomonas vaginalis has a strong adaptability to the external environment. It can survive for 14 hours to 20 hours in a semi-dry environment, and can survive in wet towels and clothes 23h, it can survive 102h in 40°C bath water, 65h in 2°C water, 7 h in -10°C environment, and 45 min in ordinary soapy water.

150min.

Trichomonas vaginalis infection is related to economic status, living conditions, sanitary facilities and living habits, etc., with low nutritional status and poor living conditions.

Poor hygiene, lack of sanitation facilities, and poor personal hygiene can all increase the infection rate. *Trichomonas vaginalis* is also a dangerous cause of HIV infection One of the elements.

Appendix C

(Informative appendix) Clinical manifestations C.1 Vaginal infection the incubation period is 4 to 28 days, the vaginal secretions increase greatly, and the leucorrhea increases, which is yellow foamy and has peculiar smell. When the vaginal mucosa is injured Erythrocytes may appear, such as secondary pyogenic bacteria infection may appear a lot of yellow purulent leucorrhea with foul smell. Often cause genital itching, burning sensation, sexual intercourse Pain etc. Vaginal examination has tenderness, and it can be seen that the vaginal mucosa and cervix are diffusely congested and swollen. In severe cases, there is bleeding and spots. Symptoms often follow the menstrual cycle fluctuates, and symptoms generally worsen after the menstrual period.