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Short Communication

Morphological changes of cells of human tonsils affected by trichomonas

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Abstract: Aims the study was to reveal the morphological changes of cells of human palatine tonsils (PT), atypical cells and trichomonas in PT of patients in diverse diseases. Cytological material of PT of 1300 patients (male, female, aged 13 - 85) has been examined. Specimens of PT's cells were obtained by scraping from PT and placed as smears onto microscopic slides, stained by Giemsa and observed by a light microscopy (patent No. 2 293 298 C2, Russian Federation, 2007). 280 patients had malignant solid tumours of different localization, 19 patients had leukemia, 30 were practically healthy, the rest had different infections and inflammation diseases. Trichomonas were revealed from PT of male patients with iron deficiency anemia (1), remote melanoma (2), leukemia (3), lung cancer (2), trichomonas vaginalis (1) and practically healthy men (30). These patients did not suspect they were infected by trichomonas. No any trichomonas were obtained from health patients. These data support the idea that the test should be made in the following cases: (1) Patients in trichomoniasis and in other sexual infections. (2) Patients in neoplasm. (3) Patients in anemia. (4) Patients in pulmonary diseases. (5) Patients-perverted. The test can help to diagnosis and adequate treatment of trichomoniasis and other diseases**.**

Keywords: human palatine tonsils, morphological changes, trichomonas.

INTRADUCTION

It is known that trichomonas (T) tenax is considered a commensal organism found under poor oral hygiene conditions. T. tenax presents morphological similarities with T. vaginalis, and there are doubts concerning whether this protist is a parasite and whether it is a genetic variant of T. vaginalis [1]. Several species of trichomonads are intestinal or urogenital parasites of humans and animals, with only a few species typically being located in the oral cavity [2]. Potential role of protozoa in the airway epithelium disruption was presented [3]. Some investigations showed that trichomonas tenax are the parasites which are responsible for oral infection [4].

AIMS AND OBJECTIVES

Aims the study was to reveal the morphological changes of cells of human palatine tonsils (PT), atypical cells and trichomonas in PT of patients in diverse diseases.

MATERIALS AND METHODS

Cytological material of PT of 1300 patients (male, female, aged 13 - 85) has been examined. 280 patients had malignant solid tumours of different localization, 19 patients had leukemia, 30 were practically healthy, The rest had different infections and inflammation diseases.

Specimens of PT's cells were obtained by scraping from PT. The cell specimens were placed as smears onto microscopic slides, stained by Giemsa and observed by a light microscopy (patent No. 2 293 298 C2, Russian Federation, 2007).

RESULTS AND DISCUSSION

The trichomonas were revealed in the specimens of the PT of men during screening of neoplasm by a retrospective analysis of tonsil's cells (Fig. 1, 2), which was an unexpected discovery: male patient with iron deficiency anemia (1), remote melanoma (2), leukemia (3), lung cancer (2), trichomonas vaginalis (1). No any trichomonas were obtained from health patients.

The trichomonas were arranged and distributed among the epithelium with sizes from 10 to 18 μ, small pink or red nucleuses, displayed light blue staining abundant cytoplasm with clear contours which were rounded or pear-shaped.

Fig-1: A trichomonada of PT in melanoma. Smears stained with Giemsa, magnification x 1000.

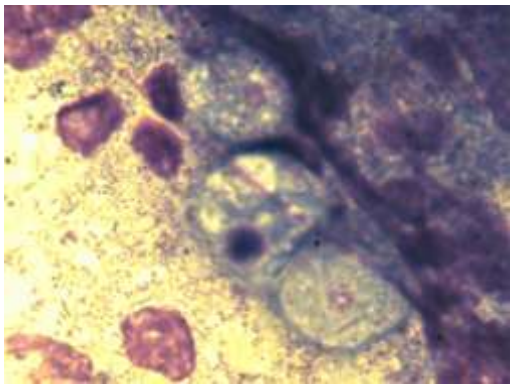

Fig-2: Three trichomonas of PT in melanoma. Smears stained with Giemsa, magnification x 1000.

Epithelial cells had large sizes, with a large nucleus and their cytoplasm was stained intensively blue. The epithelium displayed homogenous optically dense cytoplasm with sinuous contour. Some large epithelial cells had a large solitary vacuole or a few small vacuoles. It was clear dysplasia of epithelium. These patients did not suspect they were infected by trichomonas.

Some aspects of this matter, especially those related to protozoa as disruptors to the airway epithelium by means of its interaction with the so-called 'tight junctions', remain uncertain [3]. Oral cavity is atypical localization of trichomionas because no trichomonas were detected in PT of health patients. Studies completed to date have shown that trichomonas tenax can be found in humans in atypical locations such as the salivary glands and upper and lower respiratory tracts [2].

CONCLUSION

These data support the idea that the test should be made in the following cases: (1) Patients in trichomoniasis and in other sexual infections. (2) Patients in neoplasm. (3) Patients in anemia. (4) Patients in pulmonary diseases. (5) Patients-perverted. The test can help to diagnosis and adequate treatment of trichomoniasis and other diseases.

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