RESEARCH PAPER | Medical Science | Volume : 4 | Issue : 5 | May 2014 | ISSN - 2249-555X

The Inflammatory Changes of Skin in Women With Enterobiasis

KEYWORDS

V. O. Sklyarova

Danylo Halytsky Lviv National Medical University, Lviv City Center Of Family Planning And Human Reproduction

Introduction. Enterobiasis is one of the most common helminthoses in Ukraine among the adult population. Significant attention is devoted to the impact of helminths on the woman's organismbecause of the frequent detection of live pinworms and their eggs in the organs of the genitourinary system [6 , 10] and the development of serious complications caused by enterobiasis that lead to surgical interventions and even death [4 , 5, 11].

Helminthoses are evaluated in the course of gynecological examination in 30 % of women with inflammatory diseases of the lower parts of the urogenital system: recurrent cervicitis, vaginitis and vulvitis of different etiologies, 2 - 12 % of pregnant women and during pregnancy [1, 2, 7 , 9]. It should be noted that not only women with low sanitary and hygienic condition of dwellings or individuals working with the land, but also highly educated and well-situated city residents suffer from helminthoses. [8]

The purpose of the study was to determine the changes of skin and mucous membranes of external genitalia in women with enterobiasis .

Material and methods. Studies were conducted on the base of Lviv city centreof family planning and reproductive health. 20 patients aged 18 - 48 years with irritations in the area of external genitalia were examined. The control group consisted of 20 healthy women aged 17 - 45 years with no complaints. All patients were carried out gynecological examination and smears from the urethra, cervical canal and posterior vaginal fornix as well as cytological smears were taken, colposcopic examination, fecal analysis on the presence of pinworms eggs were held.

Results and discussion. In patients of the control group Enterobius vermicularis eggs were detected in one woman. Bimanual and colposcopic examination as well as results of microscopic and cytological analysis of smears revealed no pathological changes in examined patients of the control group.

Assessing the complaints, results of bimanual examination, microscopic and cytological smear and colposcopic picture in 35% women of the group with irritation of the external genitalia cervicitis was revealed, in 20% - cervical erosion, the remaining 45% had signs of chronic inflammatory changes.

In 60% of examined patients eggs of parasites were found in skin scrapings or feces. The external gynecological examination in some patients revealed Enterobius vermicularis on the surface of the skin of perianal area (Fig. 1).

Fig. 1. about here.
Gynecological examination of women with parasitic invasion attracts attention to the skin defects, produced as a result of mechanical scratching. They are macro- and microcracks of mucosal membrane and skin, ulceration, edema, rash (fig. 2).

Fig. 2. about here.
In chronic process the connection of opportunistic flora occurs, causing the development of inflammatory lesions of both perianal area and mucous membranes of external genitalia (fig. 3).

Fig. 3. about here.
All patients diagnosed with parasites were found to have various disturbances of the digestive system: chronic gastritis, biliary tract dyskinesia, gastric or duodenal ulcer, chronic constipation, hemorrhoids.

Pathogen of enterobiasis - Enterobius vermicularis is a type of round worm Nemathelminthes, class Nematode. Pinworms parasitize in the distal part of the small intestine, the cecum and proximal colon, and from there can migrate almost to the entire body. Female pinworms descend into the rectum, actively go through the anus and lay their eggs on the perianal skin area. One pinworm female can lay up to 17,000 eggs. Mature pinworms reaching the lower parts of the female reproductive system can cause vulvitis, vulvovaginitis, colpitis, endocervicitis, exocervicitis, endometriosis or cervical erosion [7, 12].

The mechanism of enterobiasis transmission is - fecal-oral, the main route of transmission is contact and household, the main factor of transmission are hands contaminated with helminths eggs. It should be noted that the sexual lives of people deversified (oral and anal sex) and therefore enterobiasismay be transmitted sexually. Mentioned above determines the classification of enterobiosis as infection that is alsotransmitted sexually. This transmission of parasitic infections is particularly relevant to young people, as they are more sexually active [3].

Hence, the presence of enterobiasis in women of childbearing age causes envolvement of skin and mucous membranes of the external genitalia in females, causes discomfort and also is a precipitating factor in the development of inflammatory processes and infertility.

Conclusions.

1. In 60 % of patients with changes of the external genitalia and perianal area enterobiasis was revealed.
2. The presence of eggs and mature pinworms on the mucous membranes of external female genital organs causelocal reactive response, accompanied by itching, discomfort, swelling, changesof texture and color of egestas.
3. In all patients with enterobiasis colposcopic changes of the vagina and cervix were found, what can cause inflammation of the reproductive organs of women and be a factor of infertility.

Prospects for further research. The changes of immunological and hormonal status in women with enterobiasis, which may cause the development of infertility, need further studies.

Volume : 4 | Issue : 5 | May 2014 | ISSN - 2249-555X

REFERENCE

1. Davydova Y. 2009. Pregnancy and helminth infections. Medical Aspects of Women's Health 5: 24-29. | 2. Fedorchenko G.A. 2010. Helminthoses in the practice of obstetrician-gynecologist. Medical Aspects of Women's Health 5/6: 30-34. | 3. Abdolrasouli A., McMillan A. and Ackers J.P. 2009. Sexual transmission of intestinal parasites in men who have sex with men. Sex Health 6: 185-194. | 4. Araújo R., Silva A., Machado J., Ramalho A., Castanheira A., Cancela E. and Ministro P. 2010. An unusual case of pinworm infection. Endoscopy 42: 155. | 5. Craggs B, De Waele E, De Vogelaere K, Wybo I, Laubach M, Hoorens A and De Waele B. 2009. Enterobius vermicularis infection with tuboovarian abscess and peritonitis occurring during pregnancy. Surg. Infect. (Larchmt.) 10: 545–547. | 6. Dennie J.and Grover S.R. 2013. Distressing perineal and vaginal pain in prepubescent girls: an aetiology. J. Paediatr. Child. Health 49: 138-140. | 7. Dotters-Katz S., Kuller J. and Heine R.P. 2011. Parasitic infections in pregnancy. Obstet. Gynecol. Surv 66: 515-525. | 8. Kim D.H., Cho M.K., Park M.K., Kang S.A., Kim B.Y., Park S.K. and Yu H.S. 2013. Environmental factors related to enterobiasis in a southeast region of Korea. Korean J. Parasitol. 1: 139-142. | 9. Young C., Tataryn I., Kowalewska-Grochowska K.T., Balachandra B. 2010. Enterobius vermicularis infection of the fallopian tube in an infertile female. Pathol. Res. Pract. 206: 405-407. | 10. Ng Y.W., Ng S.B. and Low J.J. Enterobius vermicularis infestation of the endometrium - a cause of menstrual irregularity and review of literature. Ann. Acad. Med. Singapore.40: 514-515. | 11. Serpytis M. and Seinin D. 2012. Fatal case of ectopic enterobiasis: Enterobius vermicularis in the kidneys. Scand. J. Urol. Nephrol. 46: 70-72. | 12. Vose L. 2012. Pinworm in pregnancy. J. Midwifery Womens Health. 57: 184-187. |