



Leukorrhea in childhood: a case report

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Leukorrhea in healthy childhood is uncommon. In this report, a case of a healthy 3-year old girl presenting with leukorrhea was reported. This patient was diagnosed to have vaginal candidiasis due to poor toilet habit. After changing of toilet habit, the leukorrhea resolved.

Key word: *Leukorrhea, Childhood.*

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ตกขาวในผู้ป่วยเด็กที่มีสุขภาพดีเป็นสิ่งที่พบได้ไม่บ่อย ได้รายงานกรณีศึกษาของผู้ป่วยเด็กหญิง
อายุ 3 ขวบที่ไม่มีโรคประจำตัวใด ที่มาพบแพทย์ด้วยอาการตกขาว ทั้งนี้ผู้ป่วยได้รับการวินิจฉัยว่าเป็น
การติดเชื้อราในช่องคลอดเนื่องจากสุขนิสัยของการทำความสะอาดหลังการขับถ่ายไม่ดี ภายหลังจาก
ปรับเปลี่ยนพฤติกรรมพบว่าอาการตกขาวหายไป

คำสำคัญ : ตกขาว, วัยเด็ก

Leukorrhea, abnormal blood-free discharges from the female genital tract, is complained of more frequently than any other disturbance in the realm of gynecology. The normal vaginal secretion is acid and a number of women with leukorrhea complain only of physical annoyance ascribable to this noninfectious mucous discharge due to the hypersecretion from the cervical glands. This discharge is according to the monthly cyclic change in the female.⁽¹⁾

But in the pediatric patients, the gynecological problems are uncommon.⁽²⁾ In this report, a case of 3-year-old female child presented with the leukorrhea symptom was reported.

Case report

A 3-year-old girl was brought to the physician by her parents with the complaint of leukorrhea for a month. Her mother noticed the leukorrhea spot at the child's underwear. Her mother revealed that her child was full-term, healthy, normally developed and got complete vaccination.

This patient is fed at home by her parent and has not been educated at any school. Her mother stated no traumatic or child abuse on the patient.

From physical examination, general appearance and general physical examination of the patient was within normal limit. Genitalia examination reviewed some white curd like discharge. The hymen is intact. No lesion was found from external genitalia examination. From discharge examination by the light microscopic, the *Candida albicans* were demonstrated.

From further history taking, her mother revealed that the girl was toilette by the running water douching machine after defecation by herself. The

mother was recommended not allow the child to use the machine for toiling and use the correct toilet method as. No antifungal regimen was prescribed. This case was followed up for two weeks and the symptoms improved. No recurrence was detected.

Discussion

Leukorrhea is a common gynecological complaint. The normal vaginal discharge results from hormonal change in the menstrual cycle. The problem of vaginal discharge requires careful attention to the diagnostic process with analysis of the nature of the discharge, physical examination including a thorough inspection and the performing of a wet film. Physiological discharge and other non infective causes, including feminine hygiene preparations, should be considered.

This article reports a case of a 3 year old girl with leukorrhea. In this age group, the leukorrhea as compliant is uncommon and if there are vaginal discharge, some abnormality should be investigated.⁽³⁾

Physiological vaginal discharge in the childhood, as opposed to leukorrhea, has not been described. Investigation of the problem of vaginal discharge in childhood is an therefore worthwhile. Leukoorrhea can be found in infants within the age of two weeks due to the cervical stimulation of the gestational estrogen and, if any infection occurs, leukorrhea can be found. But after two-week period, gestational estrogen will be metabolized and no vaginal secretion should be expected.

Before puberty, pathological leukorrhea is rare. It can be detected in case of childhood define this and with prolonged antibiotic treatment.⁽⁴⁾ In the case reported here, the patient was otherwise healthy

and well developed. The major problem in this patient was due to her toilet behavior. Due to the concept that aggressive per vaginal examination should not be performed in pediatric patient, therefore, history of well being and improvement on follow up visit after habit modification was used as diagnostic tool for this case.

In the present day, running water douche machine for toiling is widely used. For the child, it seems not proper for usage. Spillage from the feces can contaminate in the vagina. Therefore, proper toilet behavior should be advice to the parent at the well baby clinic. Feminine hygiene is a concern not only in the reproductive years, but should be observed throughout life.

Childhood is the formative period for behavior and every day routine, thus proper education and guidance of little girls are essential. Recognizing the importance of good personal hygiene habits for the prevention of diseases, the medical doctor should advise and motivate wherever possible.⁽⁶⁾ In the young childhood as this case, assisting by parents during toilet training is still necessary. The correct direction of cleaning must be anteroposterior direction and flushing by water douching machine should be avoided.

Poor hygiene is an important risk factor for vulvovaginitis in childhood because of a relatively exposed vulva, a thin vaginal wall and poor hygiene.⁽⁶⁾ Additional problems are heat and moisture, dirty clothing and coverings. It is set off by poor toilet hygiene and responds to keeping the vulva clean, cool and dry. Most is primary, nonspecific candida vulvitis with secondary vaginitis. Other causes of vulvovaginitis are rare.⁽⁷⁾

Another consideration when dealing with girl presenting with leukorrhea is to rule out the problem of child abuse. In the present day, the problem of injury and sex abuse of children has grown to be a serious social problem.

Persistent or recurrent vulvovaginitis may be due to a variety of causes, including vulvar skin disease, a foreign body in the vagina, primary vaginitis, ectopic ureter and rhabdomyosarcoma. Vaginoscopy is indicated for recurrent vulvovaginitis or bleeding and for suspicion of a foreign body, neoplasm or congenital anomaly.⁽⁶⁻¹¹⁾ The extent of evaluation depends on the anxiety of the child versus the extent of the problem, and therefore individualization is required.⁽⁶⁾ Other rare causes of vaginal discharge in childhood are outlined and the causes tabulated. Necessary examinations of these children are described altogether with suitable formats for treatment⁽⁶⁻¹¹⁾ (Table 1).

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Table 1. Causes of vaginal discharge in childhood. ⁽⁵⁻¹¹⁾

Disease	Related clinical history	Management
1. Childhood DM ⁽²⁻³⁾	Abnormal glucose profile, symptom of IDDM	DM control
2. Prolonged antibiotic usage ⁽²⁻³⁾	Chronic infectious disease, self-prescription regimen	Avoid unnecessary antibiotic prescription
3. Vaginal foreign body ⁽⁸⁻⁹⁾	History of foreign body insertion, IVP assessment	Remove foreign body
4. Granulomatous colitis ⁽⁹⁻¹⁰⁾	Radiological direct contrast filling of the rectovaginal fistula	Fistula repair
5. Vestibular ureteral ectopy ⁽⁸⁻¹⁰⁾	Shown in IVP with increased contrast medium and retrograde pyelography	Reconstruction
6. Uterine cervix polyp ⁽¹¹⁾	Vaginal bleeding with malodorous discharge, vaginal introitus rather larger with an almost absent hymen, seen in vaginoscopy	Polyp removal, the base of the polyp should be coagulated to avoid a recurrence
7. Poor hygiene ⁽⁵⁾	History of poor toilet training	Hygiene training
8. Rape	Child abuse, battle child symptom, related sexually transmitted disease and HIV	Criminal aspect, psychological rehabilitation, STD and pregnancy management

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