MUTTAKIT, VAGINAL DISCHARGE IN THAI TRADITIONAL MEDICINE

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Abstract— The wisdom of Thai traditional medicine stated many diseases that different to the modern medical knowledge. Comparison of the symptoms in between may help the diagnosis and management. Vaginal discharge is the common gynecological problem in female. It had been stated in the Thai traditional medicine textbook as "Muttakit", categorized in 4 groups. Cancer of the cervix or endometrium, bacterial vaginos is and cervicit is are the most likely of the symptoms mentioned in the textbook. Many newly found diagnoses of vaginal discharge are not mentioned in the ancient Thai traditional textbook. They should be updated to keep the wisdom remain usable as one of the alternative medicine. Many recipes of herbal compound were believed in the efficiency for some of the symptoms but not all. The correct diagnosis will give the chance to the patient to have in time and proper treatment. For example, if the Thai traditional medicine diagnosed and correlated with the cancer, herbal treatment only is not sufficient. Biopsy, surgery or radiation may have role in treatment and survival rate.

Index Terms— Muttakit, Thai Traditional Medicine, Vaginal discharge, Gynecology.

I. INTRODUCTION

Thai traditional medicine is the local wisdom for hundreds years. Some belief that the nature of this knowledge came with the Indian religious, Hindu. The knowledge had been transferred from mouth to mouth in the family or closed relative. Some were disappeared as the doctor pass away without documentation. Some treatment was done in the temple as the center of the community and the knowledge disappeared after the monk resigned to have his normal life. Fortunately, the group of the royal doctor accumulates these knowledges and keeps them in the ancient textbook so called "Kampee Bailan", like "the Bible of Thai traditional medicine". The king also had the important role to preserve the knowledge by order to the royal doctor writing the document. However, as the old the technology of writing and keeping, the information may lose in between. The comparison of the existing wisdom and the modern knowledge will not only maintain the wisdom, but improving the knowledge.

II. MUTTAKIT

"Muttakit" in Thai traditional medicine is the ancient word means the things that related to the urine. However, the Thai dictionary translated it correctly to the "vaginal discharge".

According to the hundreds-years wisdom of Thai traditional medical textbook "Mujcha Pakkanthika", Muttakit was mentioned as the abnormality of female vaginal discharge. It was categorized in 4 groups as

1. Dark bloody fluid with rotten fish smell
2. Pale blood as the bagasse betel nut
3. Pale pus like the water from washing rice
4. Mucus like the nasal discharge

However, these vaginal discharges were mentioned as the symptoms but not the diagnoses. The treatment also based on these groups without definite diagnosis. The updated Gynecological knowledge can be applied to explain these symptoms to the diagnosis. Comparing the symptoms mentioned in the Thai traditional medical textbook, can be described as

1. "*Dark bloody fluid with the rotten fish smell*". The vaginal discharge with dark bloody color and the rotten fish smell can be found commonly in the Gynecological clinic in the developing country. Even though the effective screening of cervical cancer as Pap smear was introduced to the countries, the advance stage of cervical cancer remains common. The death, rotten cancer call mixed with the blood produces the dark bloody color and smell. The smell has its characteristic. Simple pelvic examination can easily detect this problem but the people need to realize that pelvic examination with the gynecologist is necessary. The endometrial cancer is also possible to present with the bloody vaginal discharge and smell, too. Pregnancy with complication such as miscarriage and superimposed with infection may be the cause. The correct diagnosis with proper investigation leads to proper management. Pelvic examination with the tissue diagnosis is necessary prior to treatment. Ultrasonography may be useful for the diagnosis.
2. "*Pale blood as the bagasse betel nut*". The explanation of this symptom is more pale bloody color compare to the first group. The blood is less with more serum showed in pink color. The smell was not mentioned. The discharge as described can be the transudate of vaginal trauma or infection, erosion of the cervix as cervicitis or endocervical polyp. Benign pedunculated submucous myoma or endometrial polyp from the uterine cavity can be the suspect. With the bloody color in the second half of the cycle, luteal phase defect are common. The other probable diagnoses are vaginal trauma, cervicitis, cervical

cancer or the abnormality of the endometrium. Pelvic examination can detect the visible vaginal cause but not in the uterine cavity. Ultrasonography and endometrial sampling may be needed for the diagnosis of the endometrial pathology.

3. "*Pale pus like the water from washing rice*". Thai people eat rice, not bread, since the ancient time. Prior to cook, they have to wash the rice with water. This water from washing rice is in white color. The white vaginal discharge as mentioned can be physiological or pathological discharge. Of course, treatment is unnecessary for the physiological discharge. The treatment for the white pathological discharge needs the exact diagnosis. The most likely diagnosis is the bacterial vaginosis, or Gardnerella vaginitis. It caused by the changing in vaginal flora and pH. The amount of anaerobic bacteria may increase up to 100 to 1000 times. The clinical diagnoses of bacterial vaginosis are as follow;
   - Fishy odor
   - White vaginal discharge on the vaginalMucosa
   - Vaginal pH more than 4.5
   - Positive Whiff test, amine smell will bedetected after a drop of 10% KOHapplied.
   - Epithelial cell as clue cell more than 20%

   The white vaginal discharge, microscopically, has only few white blood cells. In case of infection and inflammation, the accumulation of white blood cell will present as yellowish pus. If yellow pus happened, it may be the group of sexual transmitted disease such as gonococcal or non-gonococcal infection or Trichomonas vaginalis. These sexual transmitted diseases did not be mentioned in this chapter of the Thai traditional medical textbook.
4. "*Mucus like the nasal discharge*". This short phase gives very little information for diagnosis. The mucus normally produced by the columnar cell of the endocervix. The inflammation of the cervix or cervicitis is the most likely to have this symptom. Endocervical eversion in parous os is the benign condition but made uncomfortable discharge. Endocervical polyp is the other source of this discharge. The endometrial secretion may also the possible cause of the mucus like discharge, but less common than from the endocervix. Pathology of the myometrium as the pedunculated submucus myoma is occasionally found. Endometrial polyp's secretion may show like this group, but clearer and more fluid. Normal ovulation may cause the clear vaginal mucus in mid cycle due to the high level of estrogen. This is the physiological phenomenon.

   Additionally, the Thai traditional medical textbook also mentioned about the coincident symptoms with the vaginal discharge such as the pustule or the pimple around the anus or vulva, the ulcer with pus and smell, lower abdominal pain or uterine pain plus low back pain, dizziness, fainting and anorexia. These symptoms were mentioned in generally without specific matching to the discharge and the treatment also did not include these symptoms. However, with the correct matching of the symptoms, the diagnosis is possible. The symptoms of anemia such as dizziness or fainting are caused by chronic blood lost in the advance stage of cancer and its related symptom. Infection may cause irritation and itching or ulcer as Herpes ulcer.

III. THE MISSING

To explore the Thai traditional medical knowledge, we have the missing diagnoses that should be concluded in the Thai traditional medical textbook. The first group is the pregnancy related vaginal discharge or bleeding. The bloody like vaginal discharge in the reproductive age must be considered the possibility of pregnancy and its complication unless presenting of the clear evidence to rule out. The serious complication in early pregnancy is the ectopic pregnancy and miscarriage. Incomplete abortion with infection causes bleeding with smell. It can be the cause of maternal death if the diagnosis and management are delayed.

Exogenous hormone, Phytoestrogen, is the common possible cause of vaginal bleeding or discharge in Thai people. The culture of using many herbal products in normal daily living, not only cooking but using them in varieties of application should be considered as the evidence in the thousands years historical area "Ban Chieng". Many kinds of seeding were found as food and herbal treatments. One of the foreigner record mentioned that Thai people do like eating fruit as part of their daily food.

Table 1*The plant found in the historical cave "Ban Chieng*"

Aleurites	Areca
Canarium	Madhuca
Piper	Prunus
Teminalia	Castonopsis
Cucumis	Lagenaria
Trapa	Cucurbitaceae
Momordica	Nelumbiun
Trichosanthese/Luffa	Pisum/Palmae
Phaseolus/Glycine	Celtis
Vicia/Phaceolus	Grminae
Richinus	Euphorbiaceae
Calamus	Oryza
Mangifera	

Hematological problem is the common possible cause in some race but not in Thai. Thalassemia is commonly found in Thailand and this region. It is the main cause of anemia but not the cause of bleeding disorder.

Other Endocrine disorder or systemic problem can be

the rare possible cause. Thyroid disease, hepatic disease or hyperprolactinemia can cause amenorrhea or irregular bleeding.

Even though infection was mentioned previously to have possible role in the 4 groups of Muttakit, the definite and clear explanation remain missing. Vaginal candidiasis is commonly found presented with vaginal discharge. The curd like discharge in pale yellowish white color presented with the symptom of itching. The surrounding erythematous area can be found around the vulva as vulvovaginitis.

Many sexual transmitted diseases are newly found. They may not existing or unknown in the ancient time. Neisseria gonorrhea and Chlamydia trachomatis are commonly presented with yellowish pus-liked discharge without bleeding. The urinary symptoms are commonly complained with these infections. Herpes infection presented with erythema and multiple papule formation. The covering then disrupted followed by painful dirty ulcer. The pus may compose with bleeding butulcer should be presented. Genital warts by human papilloma virus can cause vaginal irritation and discharge. The large necrosis warts may have bloody pus with smell as in the category 1 of Muttakit but uncommon. Trichomonas vaginalis presented with foamy yellowish discharge and severe itching. The vaginal mucosa and cervix may inflame and turned to red spot so-called strawberry cervix with foul smell but no bleeding. It was not mentioned as the Muttakit.

Severe infection of STD may extended to the pelvis as PID, pelvic inflammatory disease can be presented with pus-liked vaginal discharge. The amount of the vaginal discharge makes less complaint than the pelvic pain and fever. Bleeding is unlikely.

Foreign body is occasionally found nowadays as introducing of tampon and other local contraceptive device. Missing tampon may turned necrosis and produced pus like discharge mixing with menstruation. The characteristic of discharge likes the group 1 of Muttakit. However, the tampon is too modern to be known in the history. Another consideration is the culture of the local people as it was prohibit putting anything in the vagina.

Tumor of the female reproductive tract can be the cause of vaginal discharge. As mentioned, benign tumor such as pedunculated submucous myoma may have endometrial mucus bloody secretion. The commonly found benign endocervical polyps also have bloody secretion. The cervical cancer and endometrial cancer are often producing bloody discharge but not every case. The early stage of cervical neoplasia cannot be detected since they have no symptom but when they turned to the advance stage, the symptoms will showed up.

IV. MANAGEMENT

The diagnoses are necessary for the management, especially in serious case such as cancer. The patient needs pelvic examination and proper investigation. The traditional treatment may be useful with the correct diagnosis but may fail in the wrong case. Delayed management may cause progression of the disease and complication.

The principle of treatment in Thai traditional medicine is the combination of arts. The basic composition of the disease is the imbalance of 4 elements, earth, water, wind and fire. To control the balance of these element combine with herbal medication is the goal. Environmental, behavior and diet control are the methods.

There are recipes of herbal composition to treat the 4 groups of vaginal discharge. The recipes are not relate to the group of symptom in Thai traditional way. The recipes are composed of multiple herbal products in the different gradient, fresh or dry and mixing them. Some of the herbal prescribed are diuretic that based on the belief of urine related discharge. Some hot herbal like ginger is used for the vasodilatation and increase circulation. Honey is adding to the herbal product. It reduces the strong bitter teste and changes it to better test. It also covers the plant smell of herbs. Some preparations need boiling, mixing with alcohol and drinking 3 times a day. Some are made to powder putting in the alkaline water or being a small ball with honey and some needs to eat fresh.

Massage is another choice of treatment. According to the belief that falling accident or heavy lifting make the uterus turned to abnormal position especially during menstruation. It will associate with uterine pain, back pain, tension headache and leucorrhea. The process of massage will started at the leg to open the wind gate. The area of massage will base on the massage line on the back, abdomen and legs. Herbal ball also used at the back and lower abdomen. The patient will be asked to avoid heavy lifting or working, exercise as bending the body and quit some kind of food such as local fermented products.

Local treatment such as vaginal suppository tablet which is well known and using worldwide today are never mentioned in any Thai traditional medicine textbook.

Some other Thai traditional medical textbook also mentioned these symptoms of vaginal discharge but the recipes are different. These depend on the basic knowledge of the doctor who collect and transfer these knowledges. The geographic difference of the doctor and the local herb are also the major factor. They usually refer to the local plant and easy to find in the area of each doctor. According to the current knowledge, many herbals are scientifically well known in their efficacy of treatment. However, the combination of herbals in each regimen still needs more research of efficacy and toxicity.

CONCLUSION

As time passed, the new technology and knowledge discovered many new diseases. This review may be

the starting point of the revolution of the local wisdom and to realize that the local wisdom needs improvement and adaptation following the new knowledge. If it possible as intentioned, the Thai traditional medical knowledge will be persisting up-to-date and be accepted as one of the alternative medicine worldwide.

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