

CASE REPORT

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Treatment of Umbilical Pilonidal Sinus Based on Persian Medicine Principles: A Case Report

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ABSTRACT

Background: Umbilical pilonidal sinus (UPS) is caused by penetration of hair into the skin in the umbilical area. Patients may be asymptomatic at first and gradually present with pain, bleeding, pruritus, extravasations, periumbilical dermatitis, and granulation tissue. The standard treatment is surgery, which is aggressive with risk of various complications. Since there is no definite treatment for this disease, and considering the many side effects and complications of treatment options, and also the trend to use alternative and complementary medicine, this case study made an attempt to use Iranian Traditional Medicine (ITM) to treat umbilical pilonidal sinus.

Case Presentation: The patient was a 37-year-old man who presented with extravasation, redness, swelling, and stinging in the umbilical area. The patient had visited a surgeon, where he was advised to undergo surgery. The patient consented to using ITM for treatment and was prescribed *Mamraghan* poultice with which he was cured after two days of use.

Conclusion: Iranian Traditional Medicine uses various topical treatments to treat ulcers. We used a poultice recommended in PM references to heal and cure UPS.

Keywords: Iranian Traditional Medicine, navel, Umbilical Pilonidal Sinus, Topical treatment

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Introduction

Pilonidal sinus manifests in various body parts including the sacrococcygeal area, finger webs, penis, and navel. Umbilical pilonidal sinus (UPS) is a differential diagnosis of navel diseases, which occurs less commonly compared to sacrococcyx [1, 2]. However, it seems that it is more prevalent than reported [3]. Diagnosis is made based on clinical manifestations. UPS occurs as a result of hair penetration into the skin in the umbilical area, followed by reactions to foreign body which lead to sinus formation filled with granulation tissue. Patients may be initially asymptomatic, but gradually present with pain, bleeding, pruritus, extravasation, periumbilical dermatitis, and granulation with or without hair penetration [4]. Hairy young men constitute most cases [5]. Risk factors include hairiness, male sex, deep navel, youth, and low personal hygiene [6].

Many modes of treatment including extraction of hair or hairball, antibiotics to reduce rates of secondary infection, conservative measures, and radical surgery have been used [1]. Surgery is the standard treatment. Although there are reports of successful treatment with conservative measures, surgery is the definitive treatment [7, 8]. However, this aggressive treatment mode is accompanied by high rates of recurrence and failure. Patients cannot promptly return to daily activities with approximately 30-40% facing complications such as pain, hospitalization, psychologic and cosmetic issues as a result of navel extraction [1, 4, 7]. Since there is no definite treatment for this disease, and considering the many side effects and complications of treatment options, and also the worldly trend to use alternative and complementary medicine, we made an attempt to treat umbilical pilonidal sinus by a topical

treatment (*Mamraghan* or *Mirza Mamad Dawasi* poultice) from Iranian Traditional Medicine (ITM). To facilitate scientific evaluation of this treatment from a traditional medicine, the following report was prepared. The present article is a case report of a 37-year-old man treated with ITM [9].

Case presentation

History

Based on modern medicine: The Patient is a man, 37 years old, with a BMI of 24 that attended an outpatient ITM clinic in Ardabil. He was generally well and had an oral temperature of 37.1 degrees Centigrade), heart rate of 75, blood pressure of 110/85 mmHg who had foul-smelling serous and sometimes bloody extravasation, redness and swelling of the navel, and a stinging sensation when he sweated. He had a history of right inguinal hernia and also reported left inguinal hernia after surgery of the contralateral side. There was no history of underlying disease and drug intake. No trauma to the umbilical area was mentioned. There was a bulged pea-sized pink granulation tissue in the navel (Figure 1), with serous extravasation, but no urine or feces smell. Hairiness around the area was observed. Bowel sounds were auscultated. There was no tenderness, rebound tenderness, or guarding. He had been examined by a surgeon who had diagnosed him with UPS and advised him to undergo elective surgery to remove the navel. The patient had not consented to surgery and preferred to be treated using ITM. He was prescribed with *Mamraghan* poultice.

Based on ITM: The patient is a man with a dry temperament, resident in Ardabil, in youth years, moderate body frame, olive-skinned, and wavy jet-black hair. He doesn't attend in any sport, and is not stressed or in a low mood. Sleep has



Figure 1: Umbilical pilonidal sinus

good quality. He has had sinusitis and acne on the face and back for many years. Also, symptoms of a cold-wet stomach including indigestion, burping and flatulence are present. The patient experiences pruritus following consumption of hot-tempered food. Defecation occurs at most once a day with a firm consistency. He experiences a prickling sensation in the soles at night.

Treatment

Lifestyle modification

The patient was advised to observe the six principles of health in ITM as much as possible:

- 1- Taking ten deep breaths in clean air three times a day
- 2- Keeping a diet as described below.
- 3- Avoiding late sleep (sleep between 10 pm and dawn)

- 4- Performing suitable exercises based on the patient's Mizaj (jogging in place in ten-second intervals with 2 minutes of rest in between or walking)

- 5- Taking advised measures easy defecation one or two times a day

- 6- Avoiding stressful circumstances and living a calm life

Nutritional advice

- 1- Advice to consume food with a moderate or hot and wet temperament

- 2- Avoiding food with cold temperament

- 3- Consuming simple foods in each meal without any drinks or dessert

- 4- Chewing food adequately

- 5- Avoidance of food consumption before getting hungry and stop eating before getting full



Figure 2 : Mamraghan poultice

Table 1. Constituents of Mamraghan balm and their actions according to ITM literature

Scientific name(s)	Common name(s)	Name in ITM literature	Drug Actions
<i>Curcuma longa</i>	Turmeric	Orough-os safar	Dries ulcers, relieves pain and swelling [18] Dissolver, abstergent [12]
<i>Egg yolk</i>	Yolk, Yellow	<i>Sofra-tol bayz</i>	Emollient [12]
<i>Body fat of cow</i>	Fat	<i>Peah</i>	Keeps poultices in place, emollient, moisturizing [12]
<i>Grease</i>	Tail fat , Rump	<i>Eliyeh</i>	Keeps poultices in place, emollient, moisturizing [12]
<i>Pistacia terebinthus</i>	Chewing gum, Turpentine	<i>Elk-ol batm</i>	Dissolver of swellings, cleanser of slough, relieves pruritus [18] Incarnative, keeps poultices in place [12]
Bees Wax (<i>Cera alba</i>)	Honeycomb, Beeswax	<i>Moum, sham'e</i>	Dissolver, maturant, relieves pain, corrigent of drugs in poultices, enhances adherence of poultice constituents [12]

Pharmacological interventions

Prescribed drugs included *Mamraghan* poultice (Figure 2) twice a day, egg yolk, honey wax, lamb tail-fat, beef suet, gum (*Pistacia atlantica*), and turmeric. The ingredients of *Mamraghan* poultice

and their effects is demonstrated in Table 1.

Results

The disease was 100% resolved following two doses of *Mamraghan* poultice, with



Figure 3 : Post-treatment photo of the patient

complete cure confirmed in the subsequent physical examination. The serous extravasation (sometimes bloody) stopped completely. Redness and swelling of the umbilical area resolved. The prickling sensation of the navel while sweating ameliorated. No reoccurrence was observed after 5 years of follow-up. During this time, the patient has tried to keep to the six principles of health [10] and attend to personal hygiene and shaving of the area [4]. The post-treatment photo is shown in Figure 3.

Discussion

As one of the most important medical schools in complementary and alternative medicine, ITM takes a number of approaches toward prevention and treatment of disease in various stages of life. The six principles of health are of utmost

importance in treatment and also recurrence prevention of diseases [11].

UPS can be considered as an equivalent to “*qorheh*” in ITM. A treatment option for ulcers and wounds in ITM is using poultices [12]. Being easily-used, appropriate, effective, and proven, this mode of treatment was chosen for the patient.

Tumeric is one of the constituents of this poultice, with proven anti-inflammatory and antimicrobial effects as demonstrated in a number of studies [13]. In a systematic review of oral and topical use of turmeric on skin conditions including wounds by Vaughn et.al, this herb was found to be effective in 10 of the 18 included clinical trials [14].

Another component of the poultice was gum (*Pistacia atlantica*). As’adi et.al investigated gum on breast-feeding mothers and found it to have a

significant effect on breast fissures [15].

To date, there is no consensus on the best treatment option for UPS [4]. Conservative management includes extraction of hair or hairball and prophylactic antibiotics to prevent secondary infection. Sozen et.al conducted a study on conservative treatment of UPS and found the rate of recurrence to be 20% in group 1 (receiving localized debridement and systemic antibiotics), 11.1% in group 2 (receiving localized debridement, systemic antibiotics and silver nitrate), and 5.55% in group 3 (receiving localized debridement, systemic antibiotics and salt poultice). The salt poultice was significantly more effective compared to other groups [16]. In a study of conservative treatment of 43 cases by Fazeli et.al none of the patients were cured [17]. Also, in another trial of common non-aggressive treatments of modern medicine 28% experienced recurrence, while 32% were not treated in a 2-year follow-up [9].

Surgical treatment includes navel extraction and is accompanied by high rates of recurrence and failure, as well as complications including long-term pain, cosmetic issues, and psychological problems as a result of navel extraction. The rate of recurrence is relatively high, approximately 30-40% [1,4,7]. Therefore, to prevent the complications of aggressive treatment, topical drugs of ITM may be used in uncomplicated cases.

Conclusion

Proper management of UPS without side effects is of importance. An effective treatment for this disease is using ITM and topical natural remedies which are both safer and less expensive. Moreover, utilizing treatment modes of ITM as complementary or alternative medicine can prevent immethodical use of pharmacological

agents and aggressive surgery. The case presented in this article was 100% cured with no recurrence after five years of follow-up. We suggest that UPS not complicated by abscess or cellulitis, be investigated regarding treatment by debridement, dressing and *Mamraghan* poultice. A simple and effective treatment of UPS, this method can reduce recurrences and complications. Conducting clinical trials to investigate the effect of an ITM topical preparation for UPS is necessary. Lifestyle modifications are also a key factor in health, which in this case was accompanied by non-recurrence of the disease in the 5-year follow-up period.

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