ALTERNATIVE TREATMENT FOR PLANTAR HYPERHIDROSIS: USE OF URINE THERAPY

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Abstract

First morning urine is the most efficacious against combating disease and maintaining optimum health. The rationale is that after the body has rested during the night, the accumulation of minerals, hormones and vital elements contained in the urine are in higher concentration, making the first morning urine the most potent elixir. This study was confined to the external application of urine and it aimed at assessing the efficacy of urine therapy as alternative treatment, compared to a control solution (25% aluminum chloride) known as a first line of treatment for plantar hyperhidrosis. This study employed a prospective-qualitative design carried among patients suffering from plantar hyperhidrosis. Severity and the initial sweat intensities of the soles were assessed by a dermatologist. The final sweat intensities of the patients were determined after the 3-week duration of treatment. The efficacy of treatments was based on self-improvement reports from the patients, and the physicians' assessment. Result of the study revealed that urine therapy controlled hyperhidrosis in 95% of cases. The final sweat intensities were significantly reduced after 3 weeks of regular treatments. No undesirable side effects were noted. Urine as alternative treatment appears to control hyperhidrosis on the soles only if consistent treatment is practiced. Urine therapy is simple and its efficacy is comparable to topical treatment for plantar hyperhidrosis. However, a long-term maintenance therapy is proposed.

Keywords: Plantar hyperhidrosis, Urine therapy, 25% Aluminum Chloride, Sweat intensity, Alternative treatment

Introduction

Hyperhidrosis (HH) is a disorder of excessive sweating. More formally, it is the secretion of sweat by the eccrine glands in amounts greater than physiologically required for thermoregulation. HH is broadly

categorized as either primary (idiopathic) or secondary, and is further classified anatomically as focal or generalized. Primary HH tends to be focal and usually affects the palms, soles, axilla or face (Colin et al., 2010).

Current data suggest that it affects 2–3% of the population (Strutton et al., 2004). Hyperhidrosis is extremely debilitating and significantly impacts patient's recreational, occupational and social activities (Amir et al., 2000). A national survey in the USA revealed that almost 75% of affected individuals were emotionally affected by their HH (Strutton et al., 2004). Respondents with focal HH reported decreased participation in leisure activities and less time at work as a result of their perspiration. Amir and colleagues (2000) found that patients with HH suffered increased emotional problems and poorer coping abilities when compared with normal controls. Patients describe significant embarrassment related to shaking or holding hands, meeting new people, intimacy and, as a result, social withdrawal (Solish et al., 2008). To put this into perspective, studies have demonstrated that HH patients have a quality of life comparable to patients with multiple sclerosis, rheumatoid arthritis or end-stage renal failure (Cinna and Clase, 1999; Solish et al., 2005).

There is a wide range of nonsurgical (e.g. topical, systemic) and surgical treatments available for patients with focal hyperhidrosis. These treatment modalities vary in their therapeutic efficacy, duration of effect, side effects and cost, as well as in the scientific evidence of their efficacy. Aluminum salts are the most common ingredient in over-the-counter antiperspirants used to treat focal hyperhidrosis. It has been postulated that the mechanism of their action is related to mechanical obstruction of the eccrine gland duct or to atrophy of the secretory cells (Holzle and Braun-Falco, 1984; Woolery-Lloyd and Valins, 2009). The concentration of the aluminum salts in most commercial antiperspirants is 1%-2%; however aluminum chloride solutions are available in 20%-25% concentrations.

Alternative treatments for hyperhidrosis are available also. Biofeedback training, hypnosis and different types of relaxation techniques have been used to treat hyperhidrosis (Duller and Gentry, 1980; Shenefelt, 2000), but research data on their efficacy are still scarce to nonexistent. The lack of well-designed trials and long-term follow-up limits their use (Aamir and Solish, 2005). Urine therapy is another alternative method widely known to local people living in remote areas. It has been used traditionally and passed by generation to generations to younger people. The basic definition of "urine therapy" is using (your own) urine internally or externally as a way to aid or sustain your health (Beatrice, 2001). Urine is a sort of information card which registers the condition of the blood. When that information is carried back to the body, the body can consequently react according to this feedback; it will normally do this in an appropriate and precise way

(Beatrice, 2001). If urine is rubbed into the skin, it purifies blood and tissues, provides useful nutrients and sends the body a signal about what is in or out of balance. This effect is called auto immunization, which brings to an important nature of urine. Urine itself is, as said, not toxic waste product (Lara, 2003). This is a fact that probably nobody has a medical background that urine is absolutely vital to ones body's functioning, and the internal and external applications of urine have proven medical ramifications far beyond anything that the general public can imagine (Lara, 2003; Handley, 2002). Hence, this study was undertaken to determine the efficacy of urine therapy as alternative treatment for hyperhidrosis as compared to 25% aluminum chloride solution which is commonly used as first line of treatment.

Materials and Methods

The study made use of a prospective-qualitative design carried among 20 patients with plantar hyperhidrosis. Selection and grouping of the patients involved in the study were purposive and were properly qualified by a physician. The severity and initial sweat intensities of the soles were described qualitatively. Analysis of urine, sweat pH determination of the soles were done prior to treatment.

Inlcusion criteria

Only male patients suffering from plantar hyperhidrosis from mild to moderately severe cases were included in the study.

Patient Study Group

Twenty (20) male patients aged 19 to 23 with plantar hyperhidrosis were involved in the study. The identities of the patients were kept confidential and a consent to participate to the research has been signed prior to treatment.

The population was further subdivided in four groups, 5 patients each group, and categorized according to severity of their conditions from mild to moderately severe plantar hyperhidrosis. The fourth group was used as the control group. The severity or initial sweat intensity of plantar hyperhidrosis is revealed in Table 1. The assessment made for each patient was done based on the history, physical examination and complaints of each patient.

Medication & Treatment

Severity of hyperhidrosis and initial sweat intensities were determined for each patient prior to the treatment. Guidelines for external application were distributed and fully explained to facilitate better understanding so as to obtain reliable data, which also enhanced the coordination of both the patients and the researchers.

Patients of groups A, B, & C have undergone daily urine treatment for 3 weeks period every morning immediately after voiding their first urine. Topical treatment of aluminum chloride (25%) solution as the control drug was used for group D patients before going to sleep at night. Monitoring and investigation of the progress of treatment was done frequently (2-3 days interval).

Procedure

Guidelines in the External Application of Urine
and 25 % Aluminum Chloride

Urine

1. Before going to sleep at night, patients were advised to wash and clean their feet. Cleaning was done by using water alone or with soap.

2. Collect the whole volume of first morning urine into a clean wide mouthed basin or improvised basin. Make sure the basin is clean enough to avoid contamination.

3. Soak and bathe the affected area (feet) in the basin for several minutes. While soaking, rub both foot using your hands or rub the feet together with massaging motions. Do the rubbing in an alternate manner so as to even the application or treatment. Do it for about 20-30 minutes.

4. After soaking, bathing and rubbing, remove the feet from the basin. Allow the feet to dry completely.

7. After complete drying, wash the dried feet with water and dry them with clean towel.

25 % aluminum chloride

1. Treatment consists of applying the medication onto the skin (feet) and leaving it on for six to eight hours.

2. The skin must be clean and dry upon application. If the skin is moist, severe skin irritation may occur.

3. The application should be applied at night and should be washed off completely the following morning before the onset of daytime sweating.

Conduct While on Medication

1. Patients do not have specific dietary guidelines but diet-involving vegetables would be more beneficial.

2. Strenuous activities should be avoided so as to observe the effect of the treatments.

3. Drinking liquor should be avoided to gain much beneficial effect.

Data Collection and Analysis

The final sweat intensities of the patients were determined after 3-week duration of treatment. The outcome measure was based on self-reported improvement and physicians' assessment. Urine analysis results were analysed prior to treatment. Other data like history of the patients, their daily activities, and their diet during the days of treatment were also collated. The researchers made use of qualitative analysis based from physician's report.

Results

Twenty patients have been monitored and followed through for 3 weeks. One patient stopped using urine as treatment, claiming that he was not able to manage the treatment. However, the remaining 19 patients from different groups described the treatments as highly successful. Both therapy controlled plantar hyperhidrosis in 95% of cases.

During the course of treatment, patients from group C observed that sweat intensities were significantly reduced. Though there was remission of sweating, the frequency and intensities became minimal and triggered seldom as described. Patients from groups A and B also claimed that there was significant improvement in the 8th day at least, during the course of treatment. After the completion of the entire days of treatment, results from both groups were satisfactory and felt relieved with their condition. Overall, final sweat intensities were significantly reduced and controlled after the 3-week duration of urine treatment. There were no side effects claimed. Furthermore, all patients noted that the smell or odor of their feet was also eliminated. The offensive odor is not a direct cause of hyperhidrosis; however, if sweaty feet get soggy inside shoes, overgrowth of harmless skin bacteria can cause a bad smell (Hawes, 2005).

Table 1. Course of Treatment

Study Group	Severity/Initial sweat intensity	Result – Post Treatment	Side effects
A. Urine Therapy			
Group A Patients	Mild	**Assessment:** Significantly reduced; very minimal sweating; odor was eliminated	none
Group B Patients	Moderate	**Assessment:** Significantly reduced; very minimal sweating; odor was eliminated	none
Group C Patients	Moderately-severe	**Assessment:** Significantly reduced; minimal sweating; odor was eliminated	none
B. 25 % Aluminum chloride			
Group D Patients	Moderately-severe	**Assessment:** Significantly reduced; very minimal sweating; odor was eliminated	irritation

From the control group (D), patients showed satisfactory response to aluminum chloride (25%) solution. Application of treatment was done daily in the same way as they would apply an antiperspirant. Patients from this group conscientiously followed the guidelines for treatment. However, all of whom experience side effects. The principal side effect was irritation but described as bearable so they continued the treatment. In as short as 3 days, sweat intensities was notably reduced. Remission of sweating was mentioned but the frequency and intensities became very minimal. After 3 weeks, result of treatment was highly successful. No odor was also noted.

Discussion

The exact mode of action of urine as alternative treatment for hyperhidrosis is not known. Lara (2003) and Christy (2005) postulated that if urine is rubbed into the skin, it provides useful nutrients and sends the body a signal about what is in or out of balance; that massaging with urine allows greater access to the body, which stimulates the immune system. The auto immunization effect of urine brings an important nature of its characteristics. It clearly has a powerful antiseptic effect when externally applied. (Christy, 2005)

Based on the narrative and daily monitoring survey, patients from group A and B were sometimes engaged in drinking liquor. This might have affected the efficacy of urine treatment. This is supported by the study of Van Der Kroon (2002), that drinking should be avoided to obtain much beneficial effect of urine therapy. Hence, activities and diet are attributed as factors in the efficacy of urine therapy.

The urine samples from 20 patients were found to be normal. This supports that the urine used in the treatment was non-pathologic. First morning urine of a healthy individual is slightly acidic in nature (Strasinger and Di-Lorenzo, 2008; Brunzel, 2004). This might have contributed to the therapeutic effect of urine since external application renders the surface of the feet more acidic; thus inhibiting the growth of bacteria and fungi causing bad odor. Dr. Todorov (2005) cited that skin is slightly acidic. This holds true when sebum and sweat are mixed up in the skin and form an acid mantle. The presence of acid mantle protects the skin from elements (such as pollutants) and harmful bacteria and fungi thus causing bad odor.

The limitation of urine therapy as alternative treatment are the time of treatment and a time consuming procedure, as it may require 30 minutes per session using your first morning urine. Nevertheless, no side effects were described by the patients. On the other hand, localized burning, stinging and irritation are the principal side effects of alumimun chloride (Aamir et al., 2005; Ellis and Scurr, 1979) as the control. Same side effects were noted in the study group. Initial irritation was experienced and persists in a milder

form to all the patients from the control group (D). But the treatment was highly successful. According to literatures, 25% aluminum chloride is an effective first-line treatment for focal hyperhidrosis. (Goh, 1990; Scholes et al., 1979; Shelly et al., 1975)

Conclusion

Urine therapy as alternative treatment significantly reduces hyperhidrosis on the soles only if consistent treatment is applied. A long-term maintenance therapy is proposed. Palmar hyperhidrosis appeared to be controlled simultaneously when plantar hyperhidrosis was successfully treated. Odor was eliminated after the treatment. Urine therapy is simple and effective alternative treatment for plantar hyperhidrosis. Refinement in the procedure is recommended to help increase its efficacy. Further studies with better controls and greater number of studies should be done to validate this study. The authors propose to continue a long-term follow-up to these patients to assess the late results of this.

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