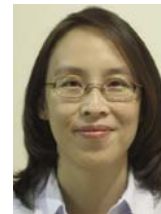


New tools and insights: Hyperhidrosis in a community setting

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The mission at Pharmacy.ca is to solve the problems of individual patients with personalized solutions. We spent time researching hyperhidrosis and learned how to serve these patients' needs.

Due to the dearth of nonacademic research, we felt a review of our patient population would be an important addition to the literature and serve as a guide to other retail pharmacies.

La mission de Pharmacy.ca consiste à résoudre les problèmes des patients par des solutions personnalisées. Nous avons consacré du temps à des recherches sur l'hyperhidrose et avons appris comment répondre aux besoins de ces patients. Étant donné la surabondance de recherches non universitaires, nous pensons qu'un examen de notre population de patients représenterait un ajout important à la documentation et pourrait orienter les autres pharmaciens détaillants.

Abstract

Background: While excessive sweating is considered by many to be a benign condition, the physical and psychosocial impact it can have on hyperhidrosis sufferers is not always fully appreciated.

Methods: A retrospective review of our pharmacy's patient records with the presenting complaint of sweating was conducted. The review covered a 2-year span and consisted of 2517 records. Using a structured questionnaire, patient information was collected via e-mail, as well as telephone and face-to-face interviews by pharmacists. Patients described their difficulties and the different coping methods they would employ to alleviate or hide their excessive sweating on different areas such as the underarms, face/scalp, hands, feet, and

torso/groin.

Results: Underarm sweating is the most frequent area for which both male and female patients seek help, followed by hands, feet, and face/neck. For males over 40, face and neck sweating is the most frequent area of concern, whereas for females over 40, underarms remain a top priority. Patients report numerous instances of feeling isolated, depressed, and a lack of self-confidence in all areas of professional and social life.

Conclusion: It is important to recognize that for some patients, excessive sweating can be a severely debilitating condition. Appropriate action must be taken in order to improve the patient's quality of life. *Can Pharm J* 2007;140:185-9.

Hyperhidrosis, or excessive sweating, is characterized by sweating beyond what is required for thermoregulation. It affects between 0.6% to 1% of the population, with the highest incidence occurring among teenagers and young adults.¹ It affects both men and women equally. Sweating is a normal physiological response to common triggers such as heat, exertion, and emotion; however, patients with primary hyperhidrosis have a lower threshold for

sweating and/or an exaggerated response to these stimuli compared to those without the condition.^{2,3}

For those with hyperhidrosis, the excessive amount of sweat shapes their daily routines. While many clinicians consider this condition to be a benign inconvenience, excessive sweating has a profound impact on the social and professional lives of these patients.

Due to the limited information available on

hyperhidrosis and the lack of knowledge and understanding from health professionals, many patients simply give up pursuing any type of treatment in the mistaken belief that their case is highly unusual and no treatment options are available to them.

The aim of this paper is to present a detailed profile of the typical hyperhidrosis patient seen in community practice. This will help health care professionals to better identify these patients and understand the physical as well as psychological challenges they face when coping with their condition.

Methods

Pharmacy.ca is a bricks and mortar compounding pharmacy that takes a special interest in the personalization of medication treatments not readily available to patients through their local pharmacies. Due to the large volume of e-mail requests for information by patients about hyperhidrosis, a structured questionnaire was created as a tool to efficiently and systematically document their condition and develop treatment plans. The questionnaire was administered via e-mail, as well as by telephone and face-to-face counselling by pharmacists. Through the Internet, we have been able to interact with hyperhidrotic patients well

outside our catchment area, allowing us to accumulate the large database of records used for this retrospective study.

The information collected included medical history, current medications, allergies, prior treatments, how the condition impacted the patient's life, and the treatment outcome the patient most wanted to achieve. By using the Internet and database collection software, pharmacists were able to quickly gather the relevant information and recommend the most appropriate course of action within a short period of time (i.e., hours versus several days). Over a period of 2 years, a large database of patients with hyperhidrosis was created.

A descriptive retrospective review of the database records was then conducted. The records of 2517 patients were included in the review. In addition, the female age group of 40 years and over was examined to discern if menopause influenced the site of hyperhidrosis. The male sample with the same age distribution was used as a control. Patient consent was not obtained, because all patient-specific identifying factors were removed from the data.

Results

The population was 53% female and 47% male. The mean age was 27 years for females and 31 years for males. Other age data are presented in Table 1.

Excessive sweating can be characterized as either focal or generalized. Areas typically affected are the underarms, face/neck, scalp, hands and feet, chest, back, and groin. The 4 most frequently mentioned sites are summarized in Table 2.

In pursuing treatment, patients were asked what areas of sweating they would most like to control. Patients most frequently requested help for the underarms, followed by the hands, feet, and face/neck (Table 3). Request for help in managing sweating from the chest, back, scalp, and groin occurred much less frequently. In females over 40, face and neck sweating went up in rank from number 4 to number 2, but underarm sweating remained the number one concern. In males over 40, face and neck sweating went up 1 rank and became the number 1 concern. Underarm sweating, however, dropped in rank from number 1 to number 3.

One measure of the seriousness of excessive sweating is the patient's choice of treatment. Surgery was chosen by 2.3% of the patients. The surgical procedure most frequently used is endoscopic thoracic sympathectomy (ETS), in which the thoracic sympathetic ganglia T2 and T3 are

TABLE 1 Patient demographics

Demographic	Females	Males
No.	1293 (53%)	1156 (47%)
Age range (years)	13–69	13–74
Mean age	27	31
Median age	25	29
No. ≥40 years	188 (7.7%)	214 (8.7%)

TABLE 2 Anatomical areas most frequently affected

Area	Number of patients (%)
Underarms	1793 (71)
Hands	1030 (41)
Feet	1019 (40)
Face/neck	993 (39)

* Since most patients sweat in more than one area, the sum of the percentages is greater than 100.

destroyed. The average age of the surgery patient was 29 years (range 15–55 years). Patients who had undergone ETS frequently complained of compensatory sweating, that is, excessive sweating over their trunk. The next most common procedure was excision of the sweat glands in the axilla. Among pharmaceutical treatments, 6% of patients had tried or were currently on SSRI antidepressants, and approximately 1% had tried or were taking beta-blockers.

Most patients had consulted their family doctor about the problem. Other health care professionals or personnel consulted included dermatologists, surgeons, psychiatrists, psychologists, naturopaths, herbalists, and acupuncturists.

Patient impact and coping strategies

Underarms

Many patients reported feeling depressed and frustrated by the relentless problem of coping with their hyperhidrosis. They felt held back socially and professionally by their condition and frequently stated that if they didn't have hyperhidrosis, they would be a different person, more confident and much more successful in all areas of life.

While most everyone has experienced underarm sweating at one point or another, hyperhidrosis patients sweat a disproportionate amount in response to light physical exertion, mildly elevated temperatures, or slight anxiety-invoking situations. Underarm sweating can range from minor wet patches to sweat reaching

down to the waistline. These patients are able to sweat through blazers and sometimes even through leather jackets. They feel extremely embarrassed to have large sweat stains showing, especially in work or social environments. Some are afraid to raise their arms or hug friends and family members.

Some patients reported stuffing tissue or paper towels under their arms or sewing dress shields into their blouses or shirts to absorb the excess sweat. Several patients even resorted to using sanitary pads under their arms to soak up the excess moisture.

Face and scalp

Facial sweating can present quite a challenge to patients in work and social environments. It can range from a slightly damp forehead to beads of sweat rolling down the face. In extreme cases, the scalp is so thoroughly wet that many patients have described themselves as looking as if they had “just come out of the shower.” Some women sweat to such an extent that it washes off their makeup. Axillary, palmar, or plantar sweating can sometimes be hidden, but it is extremely difficult to hide facial sweating. Many patients stated that

Key points

- Many people live with hyperhidrosis, and its psychological impact can be extreme.
- While excessive sweating most typically affects the underarms, patients also seek treatment for other areas of the body, such as the hands, feet, and face.
- By better understanding the physical challenges these patients face and the treatments that are available, community pharmacists can be a valuable information source.

TABLE 3 Ranking of treatment area requests by age grouping and gender

Rank	Female		Male	
	<40 years	≥40 years	<40 years	≥40 years
1	Underarms	Underarms	Underarms	Face/neck
2	Feet	Face/neck	Face/neck	Scalp
3	Hands	Feet	Hands	Underarms
4	Face/neck	Hands	Feet	Chest
5	Groin	Groin	Back	Hands
6	Back	Scalp	Scalp	Back
7	Chest	Chest	Chest	Feet
8	Scalp	Back	Groin	Groin

even if they do not feel nervous, they will start sweating profusely from the forehead and scalp during interviews, meetings, or presentations. In Western society, sweating of the forehead usually denotes extreme nervousness and those experiencing this can be misperceived as having something to hide. Many of these patients feel that this puts them at a disadvantage in job interviews and professional situations. In many cases, patients said they avoided interviews or meeting new people altogether because of their facial sweating.

Hands

Palmar sweating can also pose great difficulties to hyperhidrosis patients. While most people may experience damp palms, these individuals reported

that sweat can literally drip off their hands. They become frustrated and embarrassed when having to shake hands in social or professional situations. Others said that their sweaty palms interfere in their romantic relationships (i.e., holding hands). Many feel very uncomfortable shaking hands at work or in interview situations.

Besides the anticipated stress of having to shake people's hands with wet palms, there is also the physical impact that needs to be considered. Many children

and adolescents have difficulty holding their pens or pencils because their hands are slippery. There were numerous accounts of students having to protect their tests or homework from their wet hands; otherwise, the papers became extremely damp and, in some cases, the ink would smear.

Numerous patients are hampered in their job (e.g., wetting the keyboard when typing), or the job they take is influenced by their condition because they wouldn't be able to hold the tools properly, an important requirement for an electrician or carpenter. Sports activities are also more difficult when balls, bats, and clubs slip out of the person's grip.

Feet

Plantar sweating also presents unique challenges for hyperhidrotic individuals. Shoes are ruined due to excess sweat. Sometimes, their feet slip out of their footwear, making it dangerous to walk.

Their only option is to replace footwear every few months, which can become very expensive.

Torso and groin

Other areas affected by excessive sweating include the back, chest, groin, and buttocks. Patients said that they are especially embarrassed to have sweat showing on the front or back of their pants.

Discussion

What started as a time-saving tactic to gather medical information from patients in order to develop personalized treatment plans evolved into a data capture opportunity that has permitted a small community pharmacy to accumulate information about a relatively rare condition such as hyperhidrosis. By using an online questionnaire, the pharmacy was able to gather information from a large population of patients with a condition of such low prevalence that the usual community pharmacy would typically only see 1 or 2 patients per year. The large volume of responses from the online questionnaire provided a more complete picture of the difficulties patients with hyperhidrosis experience every day.

Although excessive sweating affects all ages, most of the patients included in this review were below the age of 30 years. This could be misleading, since the majority of the responses came from the online questionnaire, a method typically appealing to younger, computer-literate individuals. An explanation of this may be that older patients may have developed satisfactory coping mechanisms and lifestyle adjustments and are thus no longer seeking help.

In a study of 458 consecutive patients with primary hyperhidrosis who underwent ETS, the age distribution was similar to our sample.⁴ The mean age was 26 years (range 14–52 years). Our age range was similar at the low end (13 years), but higher at the top end (69 years for females and 74 for males). The authors did not break out gender; however, the gender of our population of patients was almost equal, 47% males and 53% females. Men made up 31.2% of the surgical sample and women made up 68.7%. This gender difference may be accounted for by the fact that surgical treatment is more difficult for facial hyperhidrosis, which was more of a concern for men. Only 1.1% of the surgical population was treated for facial hyperhidrosis. In our sample, men sought treatment for face and neck hyperhidrosis more often than women.

Sweating affected patients differently based on gender and age. The most frequent anatomical

Points clés

- *Beaucoup de gens vivent avec l'hyperhidrose et ses effets psychologiques peuvent être importants.*
- *Bien qu'une sudation excessive touche surtout les aisselles, les patients ont aussi besoin de thérapies pour d'autres parties du corps, par exemple les mains, les pieds et le visage.*
- *En comprenant mieux les défis physiques auxquels ces patients sont confrontés et les thérapies disponibles, les pharmaciens communautaires peuvent être une source importante de renseignements.*

area for which patients would seek help was underarm, and this type of sweating ranked as the number 1 problem for females and males under 40 years. In females over age 40, no obvious trends emerged to suggest that menopause influenced the location of hyperhidrosis. For males over 40, face and neck were the most frequent areas for which help was sought. This could be due to male head and neck changes with age, such as balding. It may also be due to work-related activities such as business meetings and presentations, as excessive facial sweating during presentations puts the presenter at a disadvantage.

For females under 40, facial sweating was ranked fourth, but moved to second place for women over 40. This shift could be due to work, fashion, or body changes with age. Women over 40 are more likely to be in positions of leadership, where facial sweating, indeed any visible sweating, is likely to be perceived as negative. However, underarm sweating continued to rank as the number 1 concern for women of all ages. Men often wear suits and are thus able to hide underarm sweating, while facial sweating remains fully visible. Women, on the other hand, tend to wear blouses or more form-fitting shirts, which expose underarm sweating readily. Indeed, a bulky sweater to hide underarm sweating is a common coping strategy for women.

Conclusion

Even though excessive sweating is not a life-threatening condition, the psychological impact can be devastating to patients. Empathy and understanding are essential attitudes when dealing with patients' embarrassment and frustration over their hyperhidrosis. Many patients have expressed great relief when they are told that their excessive sweating is a medical condition. Physicians and pharmacists can often help ease some of the psychological burden by letting patients know that they are not the only ones suffering from this condition.

Normally, the gathering of large amounts of data is limited to pharmaceutical companies and academic research facilities. However, this online questionnaire process illustrates that community pharmacy teams are able to access large numbers of patients through innovative use of technology. It also illustrates that the scope of a pharmacist's practice can reach far beyond the traditional local catchment area. A patient presenting at a community pharmacy may represent a population that has a very different profile than those presenting at an academic research centre. As this study shows, online technology can benefit community pharmacists who wish to undertake a systematic investigation of clinical problems prevalent in their specific practice setting. ■

All authors are full-time employees of Pharmacy.ca. Veronique Koo and Dipen Kalaria are both full-time practising pharmacists in the retail bricks and mortar pharmacy. Willem Wassenaar is the medical director for our specialized programs and does not prescribe for our patients. Contact pharmacist@pharmacy.ca.

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