



AWARENESS ON PALMOPANTAR HYPERHIDROSIS AMONG COLLEGE STUDENTS - A SURVEY

General Medicine

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ABSTRACT

Sweating is a normal body function that helps in regulating the body temperature. Hyperhidrosis is a condition involving abnormally increased rate of sweating. The common areas where excessive sweating can be seen are the hands and feet, underarms, face, back and groin. Palmoplantar hyperhidrosis is excessive sweating localized to the palms hand and soles of the feet. This is called focal hyperhidrosis since the increased sweating is limited to a specific region in the body. This article aims to evaluate the awareness that the college students have on palmoplantar hyperhidrosis and to spread awareness on the available treatment options. It is a questionnaire based study conducted with a batch of 100 college students. The questionnaire consisted of a set of 14 questions. The collected data was then analysed, presented statistically as graphs and the results were discussed. Only about 26% of the students were aware of the term hyperhidrosis. Out of the 100 students 13% suffered from palmoplantar hyperhidrosis. Among the areas reported where hyperhidrosis was experienced were armpits (29%), groin (7%), back (17%) and the face (24%). Out of the 100 students that took the survey, 11% claimed to have palmoplantar hyperhidrosis while 45% claimed to have come across a friend or relative who has it. About 40% of them agree that palmoplantar hyperhidrosis can affect social life while 23% did not believe so. Only 28% of them were aware of treatment options. But only 7% of them have reported positive results. From the data collected through the survey we find that not many people are aware of the term palmoplantar hyperhidrosis but almost everyone has come across at least one person with the same condition. More awareness must be created regarding the treatment options available for curing hyperhidrosis to help people suffering from it so that they can live a socially and mentally healthy life.

KEYWORDS

Emotional stress, Hyperhidrosis, Iontophoresis, Palmoplantar, Social life, Sweating.

INTRODUCTION

Primary hyperhidrosis is a functional disorder in which excessive sweat is produced even at rest with no necessary external factors to trigger it. It is not related to the normal physiological process of the body in which its temperature is regulated by producing a salt based fluid though the skin to lose heat, also known as perspiration. It generally affects one or more areas of the body, most commonly in the hands and feet, the armpits, the face, the back and the groin area –[13].

It occurs irrespective of the weather, in situations of stress and anxiety or during physical activities, etc. When limited to a specific location it is called focal hyperhidrosis. Some examples are, craniofacial hyperhidrosis (face and scalp), palmoplantar hyperhidrosis (palms and soles), axillary hyperhidrosis (armpits), inguinal hyperhidrosis (thighs and groin) [4,5]. The sweat glands present in the body produce sweat. About 75% of them are eccrine. The eccrine sweat glands are present in the epidermis and innervated by the sympathetic nervous system. Its main function is to regulate the body temperature. They are found all over the body surface, most commonly in the palms, soles, armpits and face –[68].

Palmoplantar hyperhidrosis involves excessive sweating in the palms of the hand and the soles of the feet. They almost always occur together hence they are termed so [9,10]. The diagnosis for palmoplantar hyperhidrosis can be made by clinical inspection and through a simple starch-iodine test. The main criteria for recognizing palmoplantar hyperhidrosis is presence of visible sweat, excessive and localized to palms and soles, lasting for at least six months, with no external cause. Other factors are: bilateral or symmetrical sweating, age of onset below 25 years, family history of hyperhidrosis, etc. [11]. The iodine-starch test involves a solution of iodine 2% applied to the test area on the skin followed by starch powder. The hyperhidrotic areas promote a reaction between the iodine and starch resulting in dark blue staining [12].

Though it may appear to be a harmless condition, it in fact has a major influence on the individual's social and mental health. It interferes with their daily activities, social interactions, etc. It has also been reported that patients with palmoplantar hyperhidrosis have 30% greater risk of getting skin infections [13,14].

The clinical treatments for palmoplantar hyperhidrosis can be divided into topical and systemic [15,16]. Among the topical treatments are

astringents, iontophoresis and botulinum toxin injections. The Systemic treatment consists of administering anticholinergic drugs and hypnosis [17]. In addition, a surgical method is also available now known as the video-assisted thoracoscopic sympathectomy (VATS) and it is considered the most effective out of all [18,19].

This article aims to establish the level of knowledge of the college students on palmoplantar hyperhidrosis and spread awareness regarding the same.

MATERIALS AND METHOD

It is a questionnaire based study conducted with a batch of 100 college students. It is set online and the platform used was Survey planet. The questionnaire prepared for the survey consisted of a total of 14 questions focusing on details like awareness, factors that trigger sweating, opinion on its impact on social life, etc. The information for each question collected through the questionnaire was then analysed and the data was presented in statistics. The results were then discussed.

RESULTS AND DISCUSSION

Only 26.4% of the college students were aware of the term hyperhidrosis (Fig 1) and 26.4% claimed to be experiencing hyperhidrosis (Fig 2). Other studies report the prevalence of hyperhidrosis in different regions ranging from 13.9 % in Japan, 16.3 % in Germany, 16.7 % in Vancouver, 18.4 % in Shanghai to 20.3 % in Sweden [20]. Previous literatures are in consensus. Not many are aware of the term hyperhidrosis and not many experience it either. The present study also shows that 33.3% of the students agreed that excessive sweating is triggered by hot temperatures, 22.4% said physical strain, 19.5% believed it was due to anxiety and stress, while 1.8% actually reported that they were constantly sweating without any triggers (Fig 3). Many other studies suggest that hyperhidrosis occurs because the sweat glands in these regions are hyperactive. Sometimes it even runs in the family, hence it shows a certain degree of genetic predisposition [21]. When asked about the regions where excessive sweating was most commonly experienced, 12.4% said palms, 29.4% said armpits, 24.1% said face, 17.1% said back and 7.1% said groin and thighs (Fig 4). Another study conducted by Doolittle J. et al shows that 65% of respondents reported experiencing axillary hyperhidrosis and the most common areas other than the underarms were the head and face [22]. More than 50% of the students were aware of the condition of excessive sweating from the palms and soles called palmoplantar

hyperhidrosis. Out of which, 10.9% claimed to have it themselves while 44.5% were acquainted with someone who had this condition (Fig 5). When asked about their opinion on the impact palmoplantar hyperhidrosis can have on an individual's social life, 40% said it would affect someone's social life, 22.7% said it wouldn't and 37.3% said they wouldn't know (Fig 6). The hesitation to shake hands, embarrassment in a social group, feeling uncomfortable, difficulty in handling objects and cold hands and feet were some of the problems reported by the students who suffered from palmoplantar hyperhidrosis. The study also shows that only 28.2% of the students were aware of the treatment options available for curing palmoplantar hyperhidrosis (Fig 7). Among the treatment options attempted were the use of antiperspirants, iontophoresis and surgery. However only 7.3% of them reported positive results (Fig 8). About 14.5% of the students said they were willing to consider surgery for curing palmoplantar hyperhidrosis.

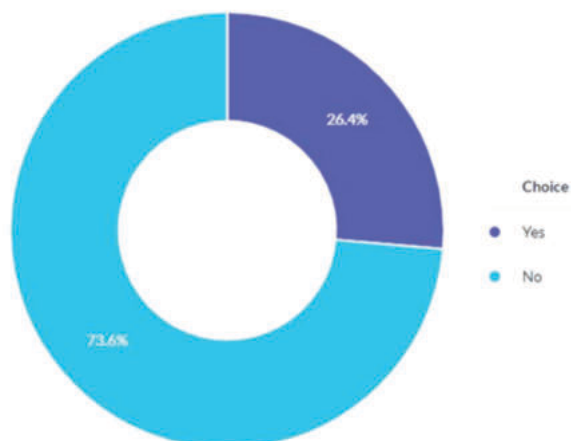


Fig 1: The pie chart depicts the frequency distribution of awareness of hyperhidrosis among the students. 26.4% were aware of the term and 73.6% were not.

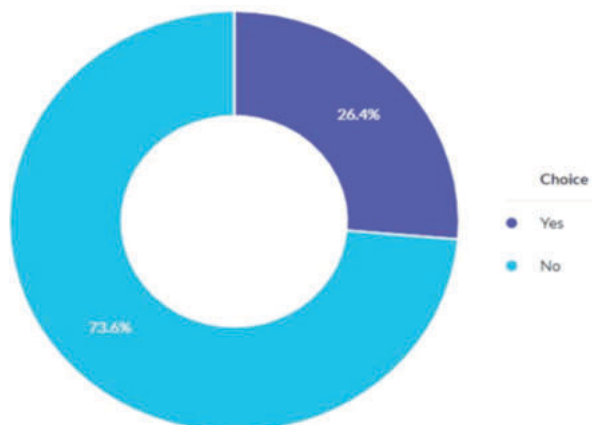


Fig 2: The pie chart depicts the frequency distribution of the students who claim to have hyperhidrosis. 26.4% said they suffer from hyperhidrosis, while 73.6% did not.

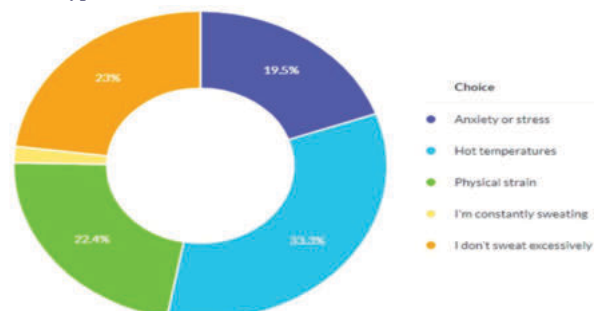


Fig 3: The pie chart depicts the percentage distribution of the factors that trigger excessive sweating in the students. The most common cause being hot temperatures (33.3%).

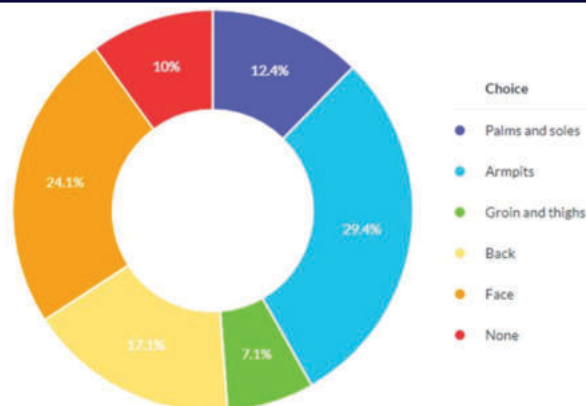


Fig 4: The pie chart depicts the frequency distribution of the areas that sweat excessively during hyperhidrosis. The most common being the armpits (29.4%), followed by the face (24.1%).

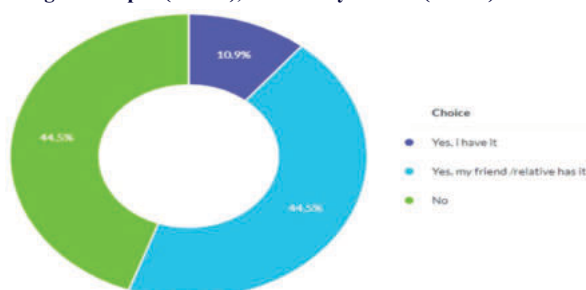


Fig 5: The pie chart depicts the frequency distribution of people who either have the condition or know someone with palmoplantar hyperhidrosis. About 10.9% of the patients have palmoplantar hyperhidrosis.

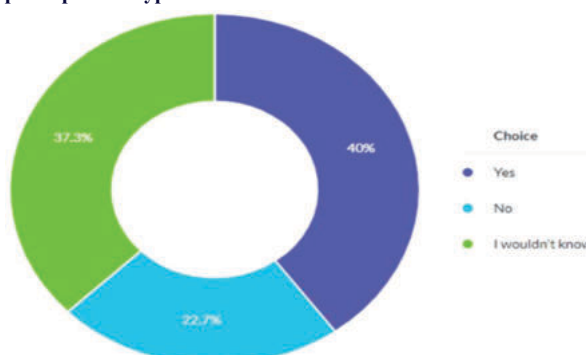


Fig 6: The pie chart depicts the frequency distribution of the opinions the students had on whether palmoplantar hyperhidrosis affects social life. About 49% agreed that it has an impact.

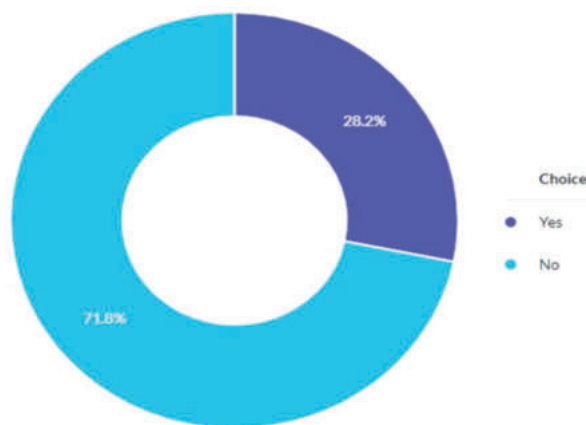


Fig 7: The pie chart depicts the frequency distribution of awareness of treatment options for palmoplantar hyperhidrosis among the students. Only 28.2% were aware.

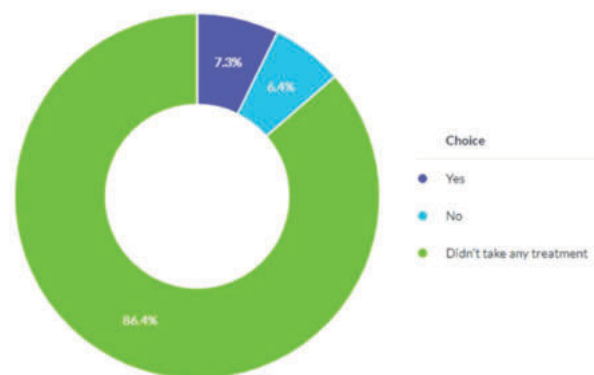


Fig 8: The pie chart depicts the frequency distribution of the treatment effectiveness among the students. Only 7.3% reported them to be effective.

Future Scope: To spread awareness on palmoplantar hyperhidrosis to the general public and its available treatment options to the people suffering from it.

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Conflicts Of Interests: None declared.

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