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CLINICAL REPORT

Itching in the Psychiatric Ward

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Chronic itch is known to have psychogenic elements; however, there is no data on itch prevalence and characteristics among hospitalized psychiatric patients. We investigated the prevalence and types of itching among hospitalized psychiatric patients who met DSM-IV criteria for schizophrenia, affective or other psychiatric disorders. A validated itch questionnaire based on the McGill Pain Questionnaire, which examines the incidence and characteristics of itching, was administered to 111 patients, hospitalized in an Israeli university hospital. Patients with atopic eczema, psoriasis, or systemic diseases that cause pruritus were excluded. Thirty-six patients (32% of those screened) reported itching. Few sought help or used anti-pruritic therapy. Itching should be addressed during psychiatric assessments, in order to provide appropriate treatment. *Key words: schizophrenia; depression; itch*.

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Chronic itch that lasts for weeks or months is a common symptom in many skin diseases, systemic diseases, such as end-stage renal and liver diseases, and psychiatric disorders (1). Chronic itch is the hallmark symptom of a delusional state of parasitophobia, and has also been reported in obsessive compulsive disorders, somatoform disorder and depression. This type of itch has been coined "psychogenic itch" (1–4). It can be a severe and incapacitating symptom.

A patient's psychological condition can substantially affect the presence and severity of itch. Psychogenic itch is thought to be mediated by the central nervous system's opioid neurotransmitter system (5). Much like pain, itch has been suggested to reflect interplay with emotional states such as depression and anxiety (6). It has been reported that patients with itch suffer from low self-image, obsessive compulsive symptoms, and have difficulties in coping with aggression. Emotional factors, such as repressing anger and altruistic interpersonal behavior, may play a role in the etiology of chronic itching in prurigo nodularis (7); thus, underlying emotional disorders may be involved in the sources of prolonged itching (8). Social problems, such as unemployment, poor work or study performance create tensions that these patients are unable to express directly (9).

Psychiatric disturbances are more common in people with pruritus, especially in patients with chronic skin diseases (10). Itching is apparently under-reported, since it seems to implicate specific personality dispositions (6). Prevalence estimates of itching in the normal population are limited. Dalgard et al. (11) found the prevalence of pruritus to be approximately 8% among a large population of Norwegian adults in Oslo. There was a significant correlation between mental distress and itch. Gupta et al. (12) demonstrated that the degree of depression directly correlates with the severity of pruritus in patients with different dermatological disorders.

Treatment of pruritus as a primary illness is symptomatic, and psychotherapy has been useful in patients with psychogenic itch (13).

Though chronic itch was found to be a common symptom in patients with schizophrenia and major depression, the literature on the prevalence of itch in psychiatric inpatients is scant.

This study aimed to examine itching prevalence, characteristics and aggravating and relieving factors among psychiatric patients in acute stages of mental illness.

MATERIALS AND METHODS

The study was approved by the Institutional Review Board of Abarbanel Mental Health Center, and all participants provided written informed consent after having received a comprehensive explanation of study procedures, and prior to recruitment.

Subjects

A total of 111 patients (62 women and 49 men) hospitalized in an open ward out of 130 patients in a large university affiliated mental health center consented to participate in the study.

Participants did not receive topical antipruritic therapy during their hospitalization, prior to the study.

Patients with prior history of inflammatory skin diseases that are known to cause chronic pruritus such as atopic eczema, psoriasis, recent history of scabies or patients with end-stage renal failure, chronic hepatitis or HIV were excluded from the study.

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Instrument

We used a validated itch questionnaire, which had previously been found to have a good internal consistency, with a Cronbach's alpha of 0.8, and test-retest reproducibility of 0.75 based on the short form of the McGill Pain Questionnaire (14–15). This questionnaire was used in several studies for the evaluation of pruritus in both inflammatory skin diseases as well as systemic diseases (14). The questionnaire contains 10 sections providing information on pruritus characteristics, affective dimensions as well as effect on quality of life. Chronic itch was defined as at least 2 episodes of itch per week, lasting 5 min or more for a period of 6 weeks or more (14). The questionnaire was administered once during a face to face interview with the patient.

Statistics

Statistical analysis was performed with SAS software. A χ^2 test was used to compare variables between itching and non-itching. Pearson's correlation was used to assess possible association between itch and drugs. A $p < 0.05$ was considered statistically significant.

RESULTS

A total of 111 patients participated in the study. The demographics of study participants are shown in Table I. Seventy-two patients (65%) met DSM-IV criteria for schizophrenia, 26 met DSM-IV criteria for affective disorders (24%), and 13 patients had other psychiatric disorders (11%). None of the patients had delusions of parasitosis.

Patients were treated with antipsychotic agents, antidepressants (selective serotonin reuptake inhibitors (SSRI) and selective serotonin and neuroepinephrine reuptake inhibitors (SNRI), anxiolytics and anticholinergics, as detailed in Table II.

Thirty-six patients (32%) (13 men and 23 women) reported having suffered from itch in the past 6 months or at present. Itch appeared significantly more frequently in women than in men ($\chi^2 = 1.39$, $p < 0.05$). Eleven patients suffered from itch at the time of the interview, and 25 patients reported chronic itch in the last 6 months.

Characteristics of itch

Fifty percent of the patients who reported itching had suffered from constant itching during the day. The other 50% had suffered from periodic bouts of itching.

Table I. *Demographic data of patients (n = 111)*

Patient characteristics	
Mean age (years ± SD)	48 ± 15
Men (*n*)	49
Women (*n*)	62
Marital status (*n* (%))	
Single	44 (40)
Married	36 (33)
Divorced	19 (17)
Widowed	12 (11)
High School and higher education (*n* (%))	5 (47)

SD: standard deviation.

Table II. *Distribution of patients according to pharmacotherapy*

Medication	Patients (*n* (%))
Second-generation antipsychotic agents	32 (36)
First-generation antipsychotic agents	34 (38)
Antidepressants – serotonin (SSRI and SNRI)	28 (31)
Antidepressants – other types	5 (5)
Anxiolytics	67 (75)
Pain killers	13 (11)
Anticholinergic agents	35 (39)
Antihistamines	21 (19)

SSRI: selective serotonin reuptake inhibitors; SNRI: selective serotonin and neuroepinephrine reuptake inhibitors.

Effect on sleep

In most patients pruritus remained stable during the night (56%). In 24% pruritus was aggravated during the night. Twenty-one percent of patients reported that sleep alleviated pruritus. In 35% of patients itching was a frequent cause of difficulty falling asleep and in 23% an occasional cause. Twenty percent of the patients regularly used sleep medications.

Effect of daily activities

The major aggravating factors of itching were: sweating (54%), psychological stress (45%), lying down (39%), clothing (39%), tiredness (39%), heat (39%), rest (35%), dry skin (33%) and physical effort (33%). The major alleviating factors were: hot showers (36%), cold showers (30%), cold ambient temperature (24%) and physical activity (21%).

Effect on mood

Twenty-three percent of the patients reported depression related to the pruritus, 20% of the patients reported anxiety due to the pruritus, 18% complained of difficulty in concentration during the itching and 12% reported increased nervousness due to the itch.

Sensory descriptors

The most common sensory descriptors for itch were: "stabbing" in 34%, "tickling" in 33% and "crawling" in 28% of the patients.

Affective descriptors

The most common affective descriptors for itch were: "bothersome" in 72%, "annoying" in 68% and "unabating" in 48% of the patients.

The itch was not confined to a specific area of the body, and there were no characteristics of the itching that were shared by all patients.

No correlation was found between itching and marital status, level of education, diagnoses or type of medi-

cation. Itch was distributed equally among all groups of psychiatric diagnoses. No correlation was noted between itching and pharmacological treatment. Patients who received medications that are known to induce itch (opiates, oral aspirin) did not report increased itch intensity. No differences in itch prevalence and intensity were noted in those patients on SSRIs and SNRIs known to inhibit itch.

Only 4 patients who complained about itching had reported using anti-pruritic therapy in the past.

DISCUSSION

Chronic itch has many similarities to chronic pain; both are unpleasant sensations that consist of multidimensional phenomena, including cognitive, evaluative and motivational components (16). Both can lead to serious impairment of quality of life (1, 14). Though many patients with chronic itch suffer from depression, anxiety and obsessive compulsive disorders, no studies have investigated the prevalence of itch and its characteristics among psychiatric patients. Though chronic itch was found to be a common symptom in patients with schizophrenia and major depression, the literature on the prevalence of itch in psychiatric inpatients is scant.

The high prevalence of itch in our study population was surprising, since itch is an under-reported symptom in psychiatric interviews. Under-reporting of itch in the psychiatric inpatient population and the small numbers of patients seeking relief for their itch may result from the patient's general deterioration of awareness of his/her physical condition and of a lack of motivation to seek medical attention. It is well known that patients with schizophrenia rarely complain about physical symptoms, pains and anomalies, and therefore itch may be similarly under-reported (17). Thus psychiatrists should be aware of this additional potential discomfort among psychiatric patients.

Stangier & Gieler (18) found that 6.5% of dermatological outpatients had somatoform pruritus, which is defined in DSM-IV as an itch with no systemic or skin disease. Another large study in Italy of more than 3000 subjects found a significant psychiatric morbidity in those patients with pruritus (19). These studies support the high prevalence of itch in our inpatient psychiatric population

Some of the psychotropic medications commonly used in this population may in fact have anti-pruritic efficacy. Drugs such as the tricyclic antidepressants, as well as SSRIs and SNRIs, have been documented to relieve itch (20–21) and have shown an anti-pruritic effect. In addition, antipsychotic agents, such as the conventional antipsychotic pimozide (22–23) and the atypical antipsychotic olanzapine (24), are known to be effective treatment for itch associated with delusions of parasitosis. Similarly, oral anti-histamines, such as promethazine (25), are still accepted in psychiatry as non-specific tranquilizers. It is therefore possible that some itching may be treated inadvertently. It can then perhaps be concluded that the true incidence of itching is even higher. However, we did not find any correlation between any of these classes of drugs and itch intensity and prevalence.

The factors that the patients reported as aggravating their itch were similar to those reported in other types of itch. Sweat was a principal factor, along with heat and dry skin (26–27). The role of psychological stress perceived by the patients as contributing to itch was lower than in atopic eczema and psoriasis disease states (27–28), which are commonly associated with emotional stress, but similar to other disease states such as chronic urticaria and uremic itch (26, 29). The major alleviating factors were similar to those reported in other types of pruritus (26, 29). Interestingly, the most common factor that relieved itch was hot showers, significantly more than cold showers, and this has been recommended for decades as a treatment for itch. Recent experimental data supports this phenomenon of itch inhibition by noxious stimuli (30). Thirty-five percent of the patients with pruritus had difficulty falling asleep due to their itch, suggesting that itch has a significant impact on the quality of the life of psychiatric patients. These results are similar to previous studies in uremic pruritus and chronic urticaria (26, 29), but significantly less than those with atopic eczema and psoriatic itch (27–28).

Thus, based on our clinical experience, it is uncommon for hospitalized patients to complain of itch in the interview. Physicians should pay special attention to secondary signs on the skin that may indicate itching and specifically ask patients whether they suffer from itch. Itch may be a source of additional discomfort among a notable proportion of the psychiatric population; it thus warrants more careful attention by treating psychiatrists, and co-operation with dermatologists to trace specific causes and provide appropriate treatment.

Study limitations

Due to the psychopathology of the study population, only 29 (80%) of the patients answered all questions on the questionnaires.

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