

## CLINICAL REPORT

# Functional Itch Disorder or Psychogenic Pruritus: Suggested Diagnosis Criteria From the French Psychodermatology Group

Laurent MISERY<sup>1</sup>, Sophie ALEXANDRE<sup>2</sup>, Sabine DUTRAY<sup>1</sup>, Myriam CHASTAING<sup>3</sup>, Sylvie G. CONSOLI<sup>4</sup>, Hubert AUDRA<sup>2</sup>, Domitille BAUER<sup>5</sup>, Sylviane BERTOLUS<sup>6</sup>, Valérie CALLOT<sup>7</sup>, Fabienne CARDINAUD<sup>8</sup>, Eliane CORRIN<sup>9</sup>, Nathalie FETON-DANOU<sup>10</sup>, Robert MALET<sup>11</sup>, Sylviane TOUBOUL<sup>12</sup> and Silla M. CONSOLI<sup>13</sup>

Departments of Dermatology, <sup>1</sup>Brest University Hospital, <sup>2</sup>Lyon University Hospital, <sup>3</sup>Unit of Liaison Psychiatry, Brest University Hospital, <sup>4</sup>7 Rue Mouton-Duvernet, Paris, <sup>5</sup>Department of Dermatology, Nantes University Hospital, <sup>6</sup>334 Rue de Vaugirard, Paris, <sup>7</sup>8 Rue Gustave Doré, Paris, <sup>8</sup>2 Avenue de Gaulle, Ozoir la Ferrière, <sup>9</sup>30 Rue du Bac, Paris, <sup>10</sup>8 Bis Place Blanmont, Gisors, <sup>11</sup>65 Boulevard de Courcelles, Paris, <sup>12</sup>9 Bis Rue de Saint-Germain, Le Port-Marly and <sup>13</sup>Department of Liaison Psychiatry, European Georges Pompidou Hospital, Paris, France

**Functional itch disorder or psychogenic pruritus is a poorly defined diagnosis. This paper sets out the proposed diagnostic criteria of the French Psychodermatology Group (FPDG). There are three compulsory criteria: localized or generalized pruritus *sine materia*, chronic pruritus (>6 weeks) and the absence of a somatic cause. Three additional criteria from the following seven items should also be present: a chronological relationship of pruritus with one or several life events that could have psychological repercussions; variations in intensity associated with stress; nocturnal variations; predominance during rest or inaction; associated psychological disorders; pruritus that could be improved by psychotropic drugs; and pruritus that could be improved by psychotherapies. Key words: itch; pruritus; psychogenic; functional; somatoform.**

(Accepted January 18, 2007.)

Acta Derm Venereol 2007; 87: 341–344.

Laurent Misery, Department of Dermatology, University Hospital, FR-29609 Brest Cedex, France. E-mail:laurent.misery@chu-brest.fr

Pruritus (or itch) was defined in 1660 by Samuel Hafenreffer as an unpleasant sensation leading to scratch (1). Like pain, pruritus represents suffering (and never pleasure, even though scratching can sometimes provide a pleasant feeling). Nonetheless, its treatment remains difficult and controversial (2, 3). Selective, rather than specific, pathways for pruritus have been described (4). Several studies have shown that sensory, motor and affective areas are activated in the brain when pruritus occurs (5–8). Hence, a new definition could be: “a sensation that is accompanied by the contralateral activation of the anterior cortex, and the predominantly ipsilateral activation of the supplementary motor areas and the inferior parietal lobule; scratching may follow” (9), reflecting the fact that “it is the brain that itches, not the skin” (10). The demonstration of the role of the brain in the pathogenesis of pruritus confirms that a psychological component

could be present in every case of pruritus (11) and that a specific psychogenic pruritus is possible (10). Indeed, itch can be induced mentally, as demonstrated by Niemeier et al. (12). The opioid system has been suggested to play a role (13), but other neurotransmitters, such as acetylcholine (14), may also be important. These physiological explanations do not exclude psychological explanations, such as abnormalities of the Ego-skin (*Moi-peau*) (15) and the concept of somatoform dissociation (16).

Psychogenic pruritus is sometimes given as a diagnosis. Unfortunately, it is too often mislabelled as idiopathic pruritus when the patient is anxious and the doctor has no other diagnosis to propose. This occurs because psychogenic pruritus is not well defined. This confusion might be serious, since it could result in misdiagnosis. In the worst scenario, a patient’s complaint might be ignored when his or her pruritus is in fact a symptom of a serious disease, such as lymphoma. In addition, some patients could wrongly feel guilty about their itch if they are told that it is simply psychological.

The French Psychodermatology Group (FPDG) is one of the thematic groups of the French Society of Dermatology. It brings together dermatologists, psychiatrists and psychologists involved in the field of psychodermatology. In order to avoid misdiagnoses of psychogenic pruritus, the FPDG organized several consensus meetings to provide definition and diagnosis criteria for psychogenic pruritus.

## METHODS

Four members of the FPDG were chosen to conduct a literature search: a professor of dermatology, a hospital dermatologist, a psychologist and a psychiatrist. The search key words were: “psychogenic pruritus”; “pruritus *sine materia*”; “itching”; and “diagnostic criteria” in French or English. The databases searched were the PubMed, Yahoo and Google websites. The 10th revision of the International Classification of Diseases (ICD-10) of the World Health Organization (WHO) and the 4th revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) from the American Psychiatric Association (APA) were taken into account. The results of this first step were discussed by the members of the FPDG in order to reach a consensus definition for psychogenic pruritus and to provide

diagnostic criteria for psychogenic pruritus that could be used easily and efficiently by dermatologists to perform such a diagnosis and to avoid a diagnosis by elimination. Each word of the definition and of the diagnostic criteria were discussed over the course of five meetings until a consensus was reached. This consensus was based on the experts' opinions; criteria of evidence-based medicine were not considered.

The present paper was written by the first author, then reviewed, discussed and approved by all co-authors.

## RESULTS

Few articles are related specifically to psychogenic pruritus, as only 27 references were found on PubMed with this key word, for the period 1955 to 2005, but all reviews on the subject of pruritus mention this disease. Some authors propose their own definition, but most speak of it only as a diagnosis of exclusion. No dermatological consensus meeting has proposed a definition for psychogenic pruritus, but psychiatric classifications give some indication of what psychogenic pruritus could be.

In classifications of associated skin and psychological disorders, pruritus *sine materia* was included by Misery & Chastaing (17) among "psychological disorders responsible for skin sensations", whereas Consoli (18) classified it among "functional cutaneous and mucous disorders", and Koblenzer (19) placed it among "conditions in which strong psychogenic factors are imputed".

In the ICD-10, psychogenic pruritus is not clearly defined, but pruritus is reported in the diagnosis "other somatoform disorders" (F45.8), along with dysmenorrhoeal, dysphagia, psychogenic stiff neck and bruxism. These disorders are classified among somatoform disorders, which are included in the broader category "neurotic disorders, stress-linked disorders and somatoform disorders".

In the DSM-IV, there is no clear definition of psychogenic pruritus, but some indications are given among somatoform disorders, which are defined as "physical symptoms evoking a general medical disease, but which can be completely explained by neither a general medical nor another mental disorder". "These symptoms must be responsible for a clinically significant suffering or an alteration of the personal functioning in social, professional or other domains." "These somatoform disorders are different from psychological factors influencing a medical disease by the fact that no general medical affection can be diagnosed to completely explain physical symptoms".

The term "psychogenic pruritus" is not used, but we suggest that it can be recognized among the three following diagnoses in DSM-IV:

- Undifferentiated somatoform disorders (300.81): one or some somatic complaints, without any medical or mental disease available for understanding the presence or the intensity of these symptoms, since 6

months or more. This symptom is not intentionally self-induced or simulated.

- Pain disorder associated with psychological factors (307.80): psychological factors play a critical role in the triggering, the intensity, the aggravation or the persistence of the pain.
- Not specified somatoform disorder (300.81): all disorders with somatoform symptoms which respond to criteria of no specific somatoform disorder.

No diagnostic criteria have been defined. Nonetheless, Radmanesh & Shafiei (20) propose some common features that may be helpful in differentiating psychopuritic disorders from physical pruritic illness, in accordance with their study of the underlying psychopathologies in patients subjectively defined as having psychogenic pruritus:

- The episodes are chronic and relapsing with short, intense uncontrollable episodes of pruritus and itch-free intervals of variable length (from hours to days).
- The patients experience feelings of pleasure during scratching and some psychological relief and satisfaction following termination of itching can be found.
- The itching sensation in neurotic excoriation (NE) and generalized psychogenic pruritus (PP) may be all or none in behaviour, meaning that triggering of pruritus in any area of the body may lead to a whole-body itching sensation.
- Pruritic episodes may be bizarre in onset, presentation and termination: they may be acutely started and sharply terminated.
- Pruritic episodes are more common during relaxation or sleep.
- Self-inflicted lesions, such as excoriation and erosions, with subsequent haemorrhages and crusts are common in lichen simplex chronicus, NE and prurigo nodularis.
- Patients show little response to common anti-pruritic agents.
- Patients are introverted and there may be a recent history of emotional and psychological stress.

Taking into account all of the above, we concluded this study by the absence of a clear and consensual definition and diagnostic criteria for psychogenic pruritus. This definition must be valid and practical in the dermatological field, psychiatric and psychological fields, so it was reached at a meeting between dermatologists, psychiatrists and psychologists.

## FDPG'S PROPOSALS

After extensive, stimulating and sometimes contentious discussions, the FDPG formed a consensus to define

psychogenic pruritus, to classify it among closely related disorders and to propose diagnostic criteria.

Concerning the terminology “psychogenic pruritus”, the FPDG discussed other possibilities such as “non-organic pruritus”, “psychosomatic pruritus”, “somatoform pruritus”, “itch disorder associated with psychological factors” and “functional itch disorder”. This last term is probably the best because it includes psychogenic pruritus among functional disorders and it avoids the word “psychogenic”, which may be too interpretative. The term “somatoform pruritus” might be more acceptable outside of dermatological societies with regard to the ICD-10 definition.

The FPDG proposed defining functional itch disorder (FID) as “an itch disorder, where itch is at the centre of the symptomatology, and where psychological factors play an evident role in the triggering intensity, aggravation or persistence of the pruritus”.

Nevertheless, this definition did not appear satisfactory for dermatological practice, as it would not avoid wrong diagnoses and it is not sufficient for clinical trials. Therefore, positive diagnostic criteria are necessary and are proposed in Table I. A total of ten criteria can be divided into three compulsory and seven optional ones. For a diagnosis of functional itch disorder, all of the three compulsory criteria and at least three of the seven optional ones must be met. A duration of 6 weeks was proposed in order to match the definition of psychogenic pain, which is defined with a duration of 6 weeks. It also allows time to exclude any organic aetiology for the pruritus.

The FPDG preferred the terminology “functional disorders”, since the term “somatoform disorders” suggests a psychiatric definition and there is neither a somatic nor a psychiatric underlying diagnosis, although an internal psychological conflict is possible. The term “functional disorders”, on the other hand, suggests a definition from the medical point of view, where no somatic cause can be found, but an associated mental disorder or disease is possible. An associated psychological conflict preceding the onset of symptoms or a psychiatric disorder is not

Table I. *Diagnostic criteria for functional itch disorder (psychogenic pruritus)*

---

*3 compulsory criteria:*

- Localized or generalized pruritus *sine materia* (without primary skin lesion)
- Chronic pruritus (> 6 weeks)
- No somatic cause

*3/7 optional criteria:*

- A chronological relationship of pruritus with one or several life events that could have psychological repercussions
- Variations in intensity associated with stress
- Nocturnal variations
- Predominance during rest or inaction
- Associated psychological disorder
- Pruritus that could be improved by psychotropic drugs
- Pruritus that could be improved by psychotherapies

---

necessarily found when the diagnosis of functional itch disorder is made, but can be revealed later.

Functional itch disorder belongs to a family of disorders that the FPDG suggests naming “functional muco-cutaneous disorders”, which are reported in Table II. These disorders may be similar to other disorders that are not in the muco-cutaneous field, including psychogenic pain, psychogenic cough and irritable bowel syndrome.

Some differential diagnoses of functional itch disorder must be made. Psychogenic urticaria, psychogenic dermographism, psychogenic excoriations without pruritus and dermatitis artefacta cannot be included in the same category as functional itch disorder.

## DISCUSSION

In one of the main reviews of psychogenic pruritus, Fried (21) suggests that neither psychogenic nor organic pruritus exist in a pure form. The author recommends approaching the patient with psychogenic pruritus with the same objectively derived list of differential diagnoses and the same comprehensive treatment plan given to any other patient. He also argues that “it should be remembered that even ‘crazy’ patients develop real organic illness and thus casual dismissal of complaints of these patients can result in oversights”. Nonetheless, the author proposes a therapeutic framework for the management of these patients, which means that psychogenic factors may enhance any kind of itch and does not exclude the possibility that a true psychogenic pruritus exists. However, the diagnosis of this functional itch disorder needs to be made on the basis of diagnostic criteria and is probably rare. On the other hand, an emotional component of itch (or pain) is common (22) and dermatologists must bear it in mind.

One study reports that 6.5% of outpatients at a university department of dermatology suffered from “somatoform pruritus”, according to a definition close to those of the DMS-IV (23). However, the diagnostic criteria were not defined and we suggest that functional itch disorder is rarer than is suggested by this study. Nonetheless, this study is interesting as it is the only one.

In the original DSM (DSM-I, 1952) psychogenic pain and pruritus were not discussed. In DSM-II (1968) they were once again not specifically mentioned, but could be

Table II. *Functional muco-cutaneous disorders*

---

Functional itch disorder
Skin psychogenic pain
Skin psychogenic paraesthesia
Vulvodynia
Stomatodynia, glossodynia
Some trichodynias
Some reactive/sensitive/hyper-reactive/irritable skins

---

included in “psychophysiological disorders”. DSM-III (1980) included the concept of “psychogenic pain disorder”. However, experts noted that this diagnosis was infrequently applied in published studies and clinical experience (24). DSM-III-R (R for “revised”; 1987) re-named psychogenic pain as “somatoform pain disorder” and enlarged the definition. However, this definition appeared to be too restrictive and this diagnosis was criticized for having little clinical value (25). In DSM-IV (1994) the name was simplified to “pain disorder”, and pruritus was evoked as explained above. Hence, pain disorder and somatization appear to be valid diagnostic entities (26). Nonetheless, this “pain disorder” appears too indefinite regarding true psychogenic pain (25) in patients with true pain without an apparent physical cause but with evidence of a psychological cause.

This discussion of the evolution of the concept of psychogenic pain among psychiatrists is interesting for dermatologists, since the same conclusions could be drawn about pruritus. The greatest problems at present are to find a solution to the continuum of somatization disorder, undifferentiated somatoform disorder and pain disorder, which are all defined in terms of a number of physical symptoms (27). Functional itch disorder is in this continuum and may be one of the main problems discussed in the preparation of the next DSM-V.

The FPDG hopes that these proposals will be helpful for dermatologists. Sylvie Consoli, one of the co-authors, said that “patients suffering from functional itch disorder are formidable patients because they stimulate our clinical sense”. Such a diagnosis must be given, along with an explanation and a proposal for treatment and support. A precise definition, such as the FPDG criteria, may help researchers to understand how and why some patients suffer from this abnormal pattern of perception and have a lower threshold of pruritus than “healthy” subjects.

## ACKNOWLEDGEMENT

The authors thank Bioderma laboratories for logistic support.

## REFERENCES

- Yosipovitch G, Greaves MW, Schmelz M. Itch. *Lancet* 2003; 361: 690–694.
- Biro T, Ko MC, Bromm B, Wei ET, Bigliardi P, Siebenhaar F, et al. How best to fight that nasty itch – from new insights into the neuroimmunological, neuroendocrine, and neurophysiological bases of pruritus to novel therapeutic approaches. *Exp Dermatol* 2005; 14, Suppl. 3: 225–240.
- Misery L. Traitement symptomatique du prurit. *Ann Dermatol Venerol* 2005; 132: 492–495.
- Misery L. Voies spécifiques du prurit ? *Ann Dermatol Venerol* 2005; 132: 1007.
- Darsow U, Drzezga A, Frisch M, Munz F, Weilke F, Bartenstein P, et al. Processing of histamine-induced itch in the human cerebral cortex: a correlation analysis with dermal reactions. *J Invest Dermatol* 2000; 115: 1029–1033.
- Drzezga A, Darsow U, Treede RD, Siebner H, Frisch M, Munz F, et al. Central activation by histamine-induced itch: analogies to pain processing: a correlational analysis of O-15 H<sub>2</sub>O positron emission tomography studies. *Pain* 2001; 92: 295–305.
- Mochizuki H, Tashiro M, Kano M, Sakurada Y, Itoh M, Yanai K. Imaging of central itch modulation in the human brain using positron emission tomography. *Pain* 2003; 105: 339–346.
- Walter B, Sadlo MN, Kupfer J, Niemeier V, Brosig B, Stark R, et al. Brain activation by histamine prick test-induced itch. *J Invest Dermatol* 2005; 125: 380–382.
- Savin JA. How should we define itching? *J Am Acad Dermatol* 1998; 39: 268–269.
- Paus R, Schmelz M, Biro T, Steinhoff M. Frontiers in pruritus research: scratching the brain for more effective itch therapy. *J Clin Invest* 2006; 116: 1174–1185.
- van Os-Medendorp H, Eland-de Kok PCM, Gryphonck M, Bruijnzeel-Koomen CA, Ros WJG. Prevalence and predictors of psychosocial morbidity in patients with chronic pruritic skin. *J Eur Acad Dermatol Venerol* 2006; 20: 810–817.
- Niemeier V, Kupfer J, Gieler U. Observations during an itch-inducing lecture. *Dermatol Psychosom* 1999; 1: 15–19.
- Krishnan A, Koo J. Psyche, opioids, and itch: therapeutic consequences. *Dermatol Ther* 2005; 314–322.
- Arnold LM, Auchenbach MB, Mac Elroy SL. Psychogenic excoriation: clinical features, proposed diagnostic criteria, epidemiology and approaches to treatment. *CNS Drugs* 2001; 15: 351–359.
- Anzieu D, editor. *Le moi-peau*. Paris: Bordas, 1985.
- Gupta MA, Gupta AK. Medically unexplained cutaneous sensory symptoms may represent somatoform dissociation: an empirical study. *J Psychosom Res* 2006; 60: 131–136.
- Misery L, Chastaing M. Joint consultation by a psychiatrist and a dermatologist. *Dermatol Psychosom* 2003; 4: 160–164.
- Consoli SG, editor. *Psychiatrie et dermatologie*. Paris: Elsevier, 2001.
- Koblentz CS. Psychosomatic concepts in dermatology. *Arch Dermatol* 1983; 119: 501–512.
- Radmanesh M, Shafiei S. Underlying psychopathologies of psychogenic pruritic disorders. *Dermatol Psychosom* 2001; 2: 130–133.
- Fried RG. Evaluation and treatment of “psychogenic” pruritus and self-excoriation. *J Am Acad Dermatol* 1994; 30: 993–999.
- Gieler U, Niemeier V, Brosig B, Kupfer J. Psychosomatic aspects of pruritus. *Dermatol Psychosom* 2002; 3: 6–13.
- Stangier U, Gieler U. Somatoforme Störungen in der Dermatologie. *Psychotherapie* 1997; 2: 91–101.
- King SA. Review: DSM-IV and pain. *Clin J Pain* 1995; 11: 171–176.
- Boland RJ. How could the validity of the DSM-IV pain disorder be improved in reference to the concept that it is supposed to identify? *Curr Pain Headache Reports* 2002; 6: 23–29.
- Aronoff GM, Tota-Faucette M, Phillips L, Lawrence CN. Are pain disorder and somatization disorder valid diagnostic entities? *Curr Rev Pain* 2000; 4: 309–312.
- Mayou R, Levenson J, Sharpe M. Somatoform disorders in DSM-V. *Psychosomatics* 2003; 44: 449–451.