Delusional Parasitosis

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Psychiatric Diagnostics

Skin-related delusional diseases with unspecific status and/or status without dermatological findings, among others ‘dermatological delusion’, are categorized as ‘delusional disorders’ (ICD-10: F 22.0; DSM-IV 297.1). A delusional disorder is diagnosed when (according to DSM-IV) the following criteria are fulfilled:

A. Non-bizarre delusions (i.e. regarding situations not out of the realm of possibility, e.g. being pursued, poisoned, infected or attaining an illness) of at least 1 month’s duration

B. Criterion A for schizophrenia has never been met (i.e. among others, lack of hallucinations, disorganized speech, or behavior – so-called negative symptoms; tactile hallucinations may be present if related to the delusional theme)

C. Apart from the primary and secondary effects of the delusions, functioning is not markedly impaired and behavior is not obviously bizarre or out of the ordinary

D. If mood episodes have occurred concurrently with delusions, their total duration has been brief relative to the duration of the delusional periods

E. The disturbance is not due to direct physiological effects of a substance (e.g. drug, medication) or a general medical condition

The type of delusion describes its contents and/or orientation (erotomaniac, grandiose, jealous, persecutory). A delusion pertaining to skin can be categorized as a body-related delusion (DSM-IV: ‘The delusion that the individual has a physical defect or a medical disease factor’).

Delusional parasitosis, also known as Ekbom’s syndrome [Ait-Ameur et al., 2000], can be considered a ‘classical’ skin-related delusional disorder. The generic term ‘chronic tactile hallucinosis’ which is still used in publications is outdated: The skin symptoms experienced (‘hallucinated’) by the patient, ranging from itching to ‘crawling of animals on the skin’, are related exclusively to the content of the delusion, i.e. the uncorrectable conviction that the skin is infested with parasites. It is not infrequent that patients strive to prove their illness. Particles of skin or dirt are collected and interpreted as parasites, unspecific changes of the skin are seen as consequences of a parasite-related illness. Attempts of self-healing, such as repeated washing and disinfecting of the skin, can cause secondary skin phenomena [for recent reviews see Bhatia et al., 2000; Koo and Lee, 2001; Freudenmann, 2002].

Epidemiology

Overall, delusional disorders are rare; the prevalence (for all types!) in the overall population is estimated at 0.03%. Delusions usually begin during the later stages of life; delusional parasitosis is most frequently found in the 6th decade of a person’s life, and more common in women. Several case reports describe delusional parasitosis as a possible initial syndrome of neurodegenerative diseases like multiple system atrophy [Kumbier and Kornhuber, 2002], cerebral infarction [Nagaratnam and O’Neile, 2000], severe heart disease [Freudenmann, 2003], diabetes mellitus, dementia and other severe systemic disorders [Bhatia et al., 2000].

Differential Diagnosis

Delusional parasitosis must be distinguished from schizophrenic psychoses (A-criterion of schizophrenia is not met, cf. above) as well as from hypochondria, somatoform and body dysmorphic disorder. In the latter case, the patient’s fears are related to other organs besides the skin; the fixation is less incorrigible, i.e. the focus is on the seemingly visible changes.

Psychosomatic Diagnostics

Onset

As in other delusional and schizophrenic disorders (there have been extensive studies, e.g. within the scope of life-event research, on the latter), it can be assumed that stressful life
events and other psychosocial stressors trigger or exacerbate
the disease. Recently, a link between season and delusional
parasitosis has been reported [Goddard, 2003]. As yet, there
are no detailed studies on these aspects of delusional parasitosis.
The fact that the incidence of delusional parasitosis in-
creases with age gives reason to believe in involutional phe-
nomena as one of its causes. According to clinical experience,
affected individuals live rather reclusive lives, (close persons
may very rarely share the delusion – folie partagée) [Trabert,
1999; Kim et al., 2003].

Coping
In accordance with the content of the delusion, i.e. infestation
of the skin with parasites, considerable pressure is caused by
suffering. In the extreme case, the affected patients’ lives cen-
ter exclusively around this topic. The fact that neither relatives
nor even dermatologists recognize the disease as such means
additional stress. Depressive reactions are possible. In terms
of differential diagnoses, however, it is important that the de-
pressive symptoms span shorter periods of time than the delu-
sional symptoms.

Diagnostic Measures

Required
Assessment of the characteristic symptoms requires detailed,
usually time-consuming exploration. To this end, it is impor-
tant to establish a trustful contact first; a physician’s time con-
straints can make this lastingly difficult.

Optional
Brain diseases must be excluded. The intake of psychotropic
substances (psychostimulants, e.g. amphetamines) must be
considered as a possible etiological factor.

Additional Information
Patients with delusional parasitosis tend to start treatment
late. Not seldom, they are fixated on their symptoms and their
– delusional – explanatory model and feel misunderstood by
others. Marked social withdrawal can be a consequence. The
pressure of suffering accrued from this constellation can, on
the other hand, cause depression and latent suicidality.

Therapy

Dermatological Therapy
Unspecific changes of the skin are treated symptomatically; if
no dermatological abnormalities are detected, dermatological
therapy – in the sense of intensified skin care – can be justifi-
able as a first concession to the patient’s disease model. Bah-
mer and Bahmer [2002] successfully labeled a treatment with
injectable depot neuroleptic drugs as ‘hyposensitization’ (fol-
lowing the model of the treatment of type-I allergy) to ‘moti-
ivate’ patients suffering from delusional parasitosis to accept
an effective pharmacological strategy.

Psychosomatic Therapy

Basic Psychosomatic Care
In view of the patients, who are usually highly impaired, the
limited time frame of basic psychosomatic care allows for little
more than guidance towards treatment. Before the beginning
of a therapy, it should be ensured that the treating physician
has sufficient time and knowledge of the disease.

Indication for Psychotherapy/ Psychopharmacology
An indication for psychotherapy to support and accompany
the psychopharmacologic treatment can be presupposed. A
problem arises from the patient’s lacking readiness to accept a
treatment which contradicts his/her disease model. Whenever
compliance can be achieved by a compromise, e.g. by offering
dermatological treatment in the sense of ‘intensified skin care’
which simultaneously addresses the patient’s inner tenseness
and fear, treatment at short intervals is reasonable (e.g. 2 ses-
sions per week, shorter appointments initially, duration of sev-
eral months). The patient’s attitude is often ambivalent and
requires the physician to be quite flexible, also regarding the
frequency and allocation of appointments. Psychopharma-
ological treatment is essential.

Relaxation: Only at an advanced stage of therapy and after the
patient has gained some distance from the delusional contents,
relaxation methods may be helpful. Otherwise, the patient
may fixate on his/her paranoid processed skin sensations dur-
ing the relaxation exercises.

Psychodynamic Psychotherapy and Psychoanalytic Methods:
In the case of an acute illness pattern, depth-psychological and
psychoanalytic methods are contra-indicated.

Behavior Therapy:
Individual techniques from behavior therapy may be implemen-
ted to develop coping strategies (attention redirection, social
skills training, etc.). The core element of the behavioral approach is to work on the patient’s disease
model in a manner both sensitive and consequent. In addition,
social psychiatric methods for social and/or professional inte-
gration may be indicated.

Hypnosis:
Hypnosis is contra-indicated, at least at an acute
stage.

Psychopharmacology: The treatment is carried out by use of
antipsychotic agents. According to the research literature –
which lacks major studies – the highly potent, by no means

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‘mild’, antipsychotic Pimozide is used most frequently. Considering the psychopharmacological mechanisms of effect, preferred use of this agent prescribed at a dosage of 1–12 mg/d is incomprehensible; specific side effects (early dyskinesia, parkinsonoid) must be considered [Driscoll et al., 1993]. Besides, case studies on treatment with other antipsychotics exist (Triflupromazin, Chlorpromazin, Haloperidol – Srinivasan et al. [1994]; Sulpirid – Takahashi et al. [2003]; Risperidone – Elmer [2000]; Olanzapine – Freudemann [2003]). Even if treated with antipsychotics, prognosis of delusional disorders is often difficult; the assertion that a complete remission of symptoms – while receiving antipsychotics – can be obtained in about 54%, seems to be rather optimistic [Bhatia et al., 2000]. After discontinuation of the medication, relapses are frequent. Therefore, it is especially important to keep in touch with the patient and to plan the treatment as a long-term measure from the start.

**Instructive Programs and Combination Therapy:** Psychopharmacological treatment should always take place under supporting, psychotherapeutic supervision, if merely because of the fact that otherwise, compliance in taking the medication must be expected to be low.

**Self-Help:** There are no special support groups. For patients who are especially socially impaired, connection to a social psychiatric service is often necessary. As far as it is compliant with the individual disease model, self-help groups for mental patients are a good opportunity.

**Further Information**

The treatment of delusional parasitosis is often time-consuming and difficult regarding the interaction with the patient, at least during the initial stages. Respect towards the patient’s delusional pattern of the illness on the one hand, and implementation of psychopharmacological therapy on the other hand have to be balanced carefully. Depressive slumps and suicidal crises must be expected. The ‘hyposensitization’ strategy used by Bahmer and Bahmer [2002], is certainly difficult regarding the principle of informed consent as a basis of an ideal therapeutic relationship and vividly illustrates the kind of balance needed in this field.

As with other psychotic disorders it can be assumed that delusional parasitosis is affected by current models of possible threats of the skin held in society. For example, recently a 58-year-old woman, working as a secretary in an international company for electronic equipment, presented an otherwise typical delusional parasitosis without attributing her ‘hallucinated’ skin symptoms to parasites but to the radiation of telecommunication [unpublished data, Hillert et al., 2003].

**References**


