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 (erotomantic, 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 The generic term 'chronic tactile hallucinosis' which is still used in publications is outdated: The skin symptoms experienced ('hallucinated') by the patient, ranging from itching to 'crawling of animals on the skin', are related exclusively to the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'Neale, 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 increases with age gives reason to believe in involutional phenomena 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 center 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 depressive symptoms span shorter periods of time than the delusional symptoms.

Diagnostic Measures

Required

Assessment of the characteristic symptoms requires detailed, usually time-consuming exploration. To this end, it is important to establish a trustful contact first; a physician's time constraints 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 justifiable as a first concession to the patient's disease model. Bahmer and Bahmer [2002] successfully labeled a treatment with

injectable depot neuroleptic drugs as 'hyposensitization' (following the model of the treatment of type-I allergy) to 'motivate' 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 sessions per week, shorter appointments initially, duration of several months). The patient's attitude is often ambivalent and requires the physician to be quite flexible, also regarding the frequency and allocation of appointments. Psychopharmacological 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 during 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 implemented 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 integration 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

'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 – Freudenmann [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

- Ait-Ameur A, Bern P, Firoloni MP, Menecier P: Delusional parasitosis or Ekbom's syndrome. *Rev Med Interne* 2000;21:182–186.
- Bahmer FA, Bahmer J: Neuroleptic 'hyposensitization' – therapy for delusional parasitosis. *Dermatol Psychosom* 2002;3:148–149.
- Bhatia MS, Jagawat T, Choudhary S: Delusional parasitosis: A clinical profile. *Int J Psychiatry Med* 2000; 30:83–91.
- Driscoll MS, Rothe MJ, Grant-Kels J: Delusional parasitosis: A dermatological, psychiatric, and pharmacological approach. *J Am Acad Dermatol* 1993; 29:1023–1033.
- Elmer KB, George RM, Peterson K: Therapeutic update: Use of risperidone for the treatment of monosymptomatic hypochondriacal psychosis. *J Am Acad Dermatol* 2000;43:683–686.
- Freudenmann RW: Delusions of parasitosis: An up-to-date review. *Fortschr Neurol Psychiatr* 2002;70: 531–541.
- Freudenmann RW: A case of delusional parasitosis in severe heart failure. Olanzapine within the framework of a multimodal therapy. *Nervenarzt* 2003;74: 591–595.
- Gieler U, Knoll M: Delusion of parasitosis as 'folie à trois'. *Dermatologica* 1990;181:122–125.
- Goddard J: Seasonality of delusions of parasitosis. *J Agromedicine* 2003;9:23–26.
- Kim C, Kim J, Lee M: Delusional parasitosis as 'folie à deux'. *J Korean Med Sci* 2003;18:462–465.
- Koo J, Lee CS: Delusions of parasitosis. A dermatologist's guide to diagnosis and treatment. *Am J Clin Dermatol* 2001;2:285–290.
- Kumbier E, Kornhuber M: Delusional ectoparasitic infestation in multiple system atrophy. *Nervenarzt* 2002;73:380–283.
- Munro A: Monosymptomatic hypochondriacal psychosis manifesting a delusion of parasitosis. *Arch Dermatol* 1978;114:940–943.
- Nagaratnam N, O'Neile L: Delusional parasitosis following occipito-temporal cerebral infarction. *Gen Hosp Psychiatry* 2000;22:129–132.
- Srinivasan TN, Suresh TR, Jayaram V, Jayaram MP: Nature and treatment of delusional parasitosis: A different experience in India. *Int J Dermatol* 1994; 33:851–855.
- Takahashi T, Ozawa H, Inuzuka S: Sulpiride for treatment of delusion of parasitosis. *Psychiatry Clin Neurosci* 2003;57:552–553.
- Trabert W: Shared psychotic disorder in delusional parasitosis. *Psychopathology* 1999;32:30–34.