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Research Article

UPDATED REVIEW ON DELUSIONAL PARASITOSIS

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A B S T R A C T

Delusional Parasitosis is a psychiatry disorder the exact aetiology was unknown but some imaging and clinical investigational studies shows abnormalities in the Dopamine and Serotonin present in the Central nervous system. Along with some of the other Diseases may induces the Delusional Parasitosis like Schizophrenia, Depression, Parkinsonism and endocrine disorders like Thyroid, some of the drugs also may induce like Cocaine and narcotics along with Drugs like anti-Parkinson agents, stimulants, antidepressants, antihypertensives, antiepileptics may also Induce the Delusional Parasitosis. The exact prevalence of delusions of Parasitosis is unknown and the literature includes one report of suicide in a 40-year-old man with delusions of parasitosis. It can be treated by using the anti psychotics especially in atypical antipsychotics like Aripirazole, Olanzepine and Respiridone.

INTRODUCTION

Delusional Parasitosis is a Monosymptomatic psychosis (or) it is an infrequent psychotic illness characterized by an unshaken belief of having been infested by a parasite when one is not involving a delusion of being infested with parasites and it is characterized by an unshaken belief of having been infested by a parasite when one is not also called Ekbom syndrome after the Swedish neurologist Karl Axel Ekbom who did seminal work on this entity. Patients with DP believe that insects, worms or other small pests live in their bodies and feed on them. Visual or tactile hallucinations consistent with thought content can accompany the delusions. DP is typically observed in women over the age of 50 although isolated cases among men have been reported.

Delusional parasitosis can be primary, secondary, or organic. Primary delusional parasitosis consists primarily of a single delusional belief of having been infested by parasite and comes under monosymptomatic hypochondriacal psychosis. Secondary delusional parasitosis can occur in the context of other mental disorder like schizophrenia, depression, and dementia. Organic delusional parasitosis occurs secondary to organic illness like hypothyroidism, vitamin B12 deficiency, diabetes, cerebrovascular disease, cocaine intoxication, HIV, allergies, and menopausal state however, the causal role of the underlying disorder has rarely been elucidated.

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Although thought to be rare, the true prevalence of DP may be underestimated because patients do not believe the psychiatric origin of their complaints and are reluctant to apply for psychiatric treatment. It is believed that these parasites may be macro parasites like helminthes or smaller parasites like virus or bacteria. In background of this belief, patients may perceive parasites crawling or burrowing into skin. Discrete bruises, nodular pruritis, ulcers, and scars are frequently produced by patient trying to extract the parasite. Patient may injure themselves to get rid of parasites or compulsively gather evidence to present to health professionals for help. They may even bring dust, fibers, scab, or debris excoriated from the skin as evidence for inspection in, for example, a matchbox, often called as "match-box sign."Morgellons, which refers to cutaneous symptoms like biting, crawling, or stinging sensation, finding fibers on or under skin, and persistent skin lesions, are often seen in delusional parasitosis.They commonly seek attention of dermatologist or physicians and may continue seeking different therapies in search of a cure. Treatment primarily involves use of antipsychotics.It also involves management of primary psychological and medical condition in case of secondary or organic delusional Parasitosis respectively. Our patient manifested with belief of his body having been infested with worms. He held on to his belief regardless of absence of any evidence and exclusion of all possible organic cause. He acted on his belief and had significant psychological distress, which brought him finally to psychiatric attention. Generally, such patient presents in 56th decade with such problems. Most cases are reported from Western countries with recent reports from Asia. Although the number of reported cases increases steadily, it remains a rare phenomenon. Here, we report the treatment of a patent with

DP thought to be secondary to hyperthyroidism. This case was deemed worthy of presentation due to the scarcity of cases from Turkey, its duration of follow-up, and its temporal pattern of symptoms paralleling thyroid function tests. Our patient here presented with these distressing symptoms in his 4th decade. The present case has its salience in rarity of illness, nature of presentation, and effective management.

Epidemiology

Frequency

The exact prevalence of delusions of Parasitosis is unknown.

Mortality (or) Morbidity

The literature includes one report of suicide in a 40-year-old man with delusions of parasitosis.

Race sex and age-related demographics

Delusions of Parasitosis appear to be more common in whites than in people of other races. Delusions of parasitosis occur primarily in white middle-aged or older women, although the condition has been reported in all age groups and in men. The female-to-male ratio is approximately 2:1. More specifically, this ratio is 1:1 in people younger than 50 years and 3:1 in those older than 50 years.

Pathophysiology

The cause of delusions of parasitosis is unknown. It appears related to neurochemical pathology. This concept is underlined by its induction by psychoactive agents (eg, amphetamines, cocaine, and methylphenidate) and its coincidence with depression, schizophrenia, social isolation, and sensory impairment. Some reports have linked delusions of parasitosis to hyperthyroidism, which was deemed a secondary type of delusions of parasitosis, because it resolved with pimozide therapy and thyroid medications.

Diagnostic Considerations

Other conditions to consider include the following

a. Alzheimer's dementia
b. HIV/AIDS
c. Recreational use/abuse of drugs (e.g., cocaine, stimulants, narcotics)
d. Side effects of therapeutic drugs such as anti-Parkinsonian agents, stimulants, antidepressants, antihypertensives, antiepileptic.

Differential Diagnosis

Dermatitis Herpetiformis. Scabies.

Laboratory Studies

No laboratory test can help in diagnosing delusions of parasitosis; however, laboratory tests can help identify other diseases that can mimic delusions of parasitosis. Note the following

a. To exclude infestation, a mineral oil preparation should be used to eliminate scabies, and a microscopic examination of skin and hair should be performed to exclude louse infestation.
b. Neurologic pathology due to toxins or vitamin deficiencies can be evaluated with the appropriate tests.
c. Tests to assess other causes of pruritus (eg, low iron level, liver or kidney disease) can be performed if clinically indicated. Examples include evaluation of the complete blood cell count; urinalysis; liver function tests; thyroid function tests; and determinations of levels of serum electrolytes and glucose, blood urea nitrogen, serum creatinine, serum vitamin B-12, folate, and iron.
d. Unless dermatitis herpetiformis needs to be excluded, skin biopsy is usually more useful to reassure patients of the lack of pathology than to diagnose delusions of parasitosis.
e. Use of cocaine, methylphenidate, or amphetamines must be ascertained, and if occurring, it should be stopped.
f. It is useful to examine the "proof" that the patient brings in so that one may truthfully say that the material was examined and no parasites were found. One authority anecdotally relates how he found ants in the debris and, after explaining that these arthropods did not live on or in humans, was able to give practical advice to reduce the problem.

Imaging Studies

Huber et al found striatal lesions in patients with secondary delusions of parasitosis, but not in cases of primary delusions of parasitosis. In rare cases, neurologic impairment (eg,tumors, neuritis, and multiple sclerosis) can mimic the symptoms of delusions of parasitosis. Causes of such impairment should be excluded with MRI or CT scanning if they are strongly suspected on the basis of the clinical findings.

Histologic Findings

Delusions of parasitosis have no specific histologic findings. All skin changes are secondary to rubbing, scratching, picking, or other treatment attempts. Because patients who have delusions of parasitosis are having delusions, performing biopsies on them is not useful because any finding, even if negative for parasites, will not affect the delusion.

Treatment

a. Psychiatric therapy
b. Sometimes antipsychotic drugs

Delusional parasitosis treatment is best coordinated between a doctor who specializes in skin disorders (called a dermatologist) and a psychiatrist. The dermatologist does a thorough evaluation to make sure that there are no actual parasites. The person is then referred to a psychiatrist so that their delusion can be treated. Antipsychotic drugs such as risperidone and haloperidol can be very effective. However, people often refuse to accept psychiatric help and instead visit many different doctors in a futile search for a treatment that will eradicate the parasites they imagine. In the treatment of delusional parasitosis mostly psychiatrists using atypical antipsychotics. The exact mechanism of atypical antipsychotics is unknown. They are though to block certain chemical receptors in the brain and hence relieve the symptoms of psychotic disorders. Oral risperidone works by blocking the receptors of chemical messengers called dopamine and serotonin. Paliperidone is the substance created when risperidone is ingested into the body and hence works in the same way. Clozapine, olanazapine and quetiapine block a number of receptor types including dopaminergic, serotonergic, muscarinic, and histaminic and tries to restore the chemical imbalance in the brain. Excessive weight gain and high blood glucose may occur with clozapine and olanzapine, leading to type 2 diabetes. amilsulpride has a variant dose

dependent action. At high doses it has an antipsychotic effect; however at low doses it's more effective against the negative symptoms of schizophrenia. The mechanism of action of asripiprazole, as well as other drugs having efficacy in schizophrenia, is unknown. Ziprasidone has a complex pharmacology which gives its effectiveness against both positive and negative symptoms of schizophrenia.

Precautions

While treating the patients we are considers patients demographic and medical details and current status of the patient for provide better treatment.

Elderly Peoples

The doctor may use a lower starting dose and more gradual dose increases because of greater risk for adverse effects in older people.

Pregnant Womans

Amisulpride, aripiprazole, olanzapine, quetiapine, risperidone are ADEC category B3; paliperidone and clozapine are ADEC category C. Therapy with an atypical antipsychotic for a person planning to become or is pregnant should be conducted under the supervision of a specialist. Please see your doctor if you have any concerns about it.

DISCUSSION AND CONCLUSION

Delusional Parasitosis is a psychiatry disorder the exact aetiology was unknown but some imaging and clinical investigational studies shows abnormalities in the Dopamine and Serotonin present in the Central nervous system. Along with some of the other Diseases may induces the Delusional Parasitosis like Schizophrenia, Depression, Parkinsonism and endocrine disorders like Thyroid etc, some of the drugs also may induce like Cocaine and narcotics along with Drugs like anti-Parkinson agents, stimulants, antidepressants, antihypertensives, antiepileptic may also Induce the Delusional Parasitosis.

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