

Delusional Parasitosis as 'Folie à Deux'

Delusional parasitosis is characterized by the unshakeable belief of being infested with tiny (microscopic) insects. Patients spend much time trying to get rid of the bugs and suffer from these symptoms. Patients prefer to go to dermatologists because they have a strong conviction over the presence of a somatic disease and do not accept any psychiatric advice for their complaints. 'Folie à deux' or shared psychotic disorder (SPD) is a relatively rare syndrome, which has long attracted clinical attention. Delusional parasitosis is associated in 5-15% of SPD and can run within a family. We experienced delusional parasitosis as 'Folie à Deux' between a mother and her son and successfully treated them through early psychiatric intervention. We believe that attention should be drawn to DP with SPD.

Key Words : *Delusions; Parasitic Diseases; Shared Paranoid Disorder*

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INTRODUCTION

Delusional parasitosis (DP), a term introduced by Wilson and Miller (1) in 1946, is characterized by the involvement of the single hypochondriacal, delusional system in which the patient is feeling that he/she is infested with insects (2). Although it is one of the most common presentations of monohypochondriacal psychosis frequently reported in the European literatures (3-7), we previously reported that the incidence of DP in Korea is lower than that of olfactory reference syndrome (8). DP has also been described as primary (not due to any other underlying psychiatric or physical disorder) or secondary to other disorders such as dementia, psychosis (5), or medical conditions including vitamin B₁₂ deficiency, pellagra, severe renal disease, diabetes mellitus, multiple sclerosis, hepatitis, and leprosy (9). In an analysis of 52 consecutive cases of DP, Bhatia et al. (7) reported that three cases of DP were associated with diabetes mellitus, five cases with leprosy, five cases with dementia, four cases with depression, and three cases were associated with trichotillomania. Patients with DP spend much time and money trying to get rid of this 'infestation' and go from one doctor to another in the hope of finally finding a specialist who can offer the 'right' treatment. These patients would rather go to a dermatologist because they have a strong conviction over the presence of a somatic disease and most do not accept any psychiatric help for their complaints. This is one of the reasons why psychiatrist are not very familiar with this syndrome.

Shared psychotic disorder (SPD) was first described by Baillarger in 1860 who termed this condition as "folie com-

muniquée". It has been also called communicated insanity, contagious insanity, infectious insanity, psychosis of association, or double insanity (10). SPD is said to be a rare phenomenon in clinical setting. DP, another rare psychiatric syndrome, is relatively often associated with SPD. On the basis of a careful review of all published cases of DP, the relative frequency of SPD in this context was estimated to be around 5-15% (11). We describe two cases of SPD with DP in a mother and her son in the following case study.

CASE REPORT

Mother

The inducer was a 55-yr-old widow with elementary education. Forty-five days prior to visiting the clinic (onset of symptoms: January 2002), she suddenly noticed that many dandruff flakes fell from her neck, which turned out to be bugs when she examined them closely. Then, she noticed that many bugs were attached to the ceiling, were flying, got stuck to her arms or legs, went into her nose and mouth, fell into the floor, or balled up and became bugs again after they suddenly burst into powder. The bugs laid eggs in her skin and were bothering her a lot when the eggs in her skin suddenly bounced up at once when male bugs sprayed semen onto her body. The symptoms continued despite her effort to remove the bugs by spraying her house and her body with pesticides and wiping off her skin after spreading oil onto her body. The symptoms did not improve even after dermatologic treatment with lotion and pills for contact dermati-

tis (due to pesticides) 30 days prior to visiting psychiatric department. She even shaved her head to remove the bugs and stayed in motels 10 days before coming to us since she had too many bugs in her house. On the day of the visiting, she first went into the emergency room because she felt like suffocating due to the bugs encircling her that sprayed needle-like stuff. After dermatological examination, she was referred to the psychiatry department and was hospitalized.

She was leading an active and well-adjusted personal life, but was having a difficult time trying to make a living after her husband passed away. She even avoided meeting people after 1989 when she felt that people were ignoring her. Because her first son lost his job after getting badly hurt at work five years ago, she had to spend her time with her son, which made her more isolated from the society.

Routine laboratory examination including biochemical, hematologic, and endocrinological tests showed no abnormal findings. EEG was grossly normal but mild, localized abnormal findings with no clinical significance was present in the right midbrain area. She had no history of other psychiatric disorder, family history of psychiatric illnesses, and past history of dermatological problems. The patient frequently showed the "match box sign" (bringing specimens of bugs in little match boxes) at the time of admission.

We began treatment with quetiapine and gradually increased the dosage up to 800 mg/day. Although the symptoms improved markedly, they did not completely subside until 4 weeks of treatment. Thus, we decided to switch to pimozide by gradually decreasing the previous quetiapine dose and increasing the pimozide dose up to 4 mg/day. Seven days after pimozide treatment, the symptoms further subsided and the patient was discharged from the hospital with pimozide 3 mg/day.

Son

The son, a 33-yr-old man who worked as a wharf laborer at Inchon harbor, was involved in an accident of being run over by a tractor trailer in 1998. He was hospitalized and treated for two years for hemothorax, multiple rib fractures, and femur fracture. After being discharged, he could not find any steady job, so he had to work as a temporary worker cleaning water tanks or doing factory labors. Furthermore, he and his mother had to take care of an uncle who was hospitalized.

At one time, he lived in his mother's house with his mother, his brother, and sister-in-law. After his brother and sister-in-law moved out, he and his mother moved to a smaller house. Shortly after moving, he accidentally noticed that lots of dandruff fell on the blanket (around January 15, 2002). When he and his mother took a close look, they noticed that the dandruffs were moth larvae. He felt itchy and was having a difficult time. Although he bought mothballs and placed them at several places in the house, it was of no use. The

patient's mother developed the same symptoms around January 15, 2002. The bugs flew and got stuck to his arms or legs, flying bugs suddenly burst into powder, which got into his nose and mouth, and he saw that bug powder balled up again to become bugs again. The bugs were yellowish transparent and were the size of millet. They laid eggs in the patient's skin and were bothering him a lot when the eggs in his skin suddenly bounced up at once as male bugs sprayed semen onto his body. He could not even sleep because it was so itchy and painful. Despite efforts to get rid of the bugs by spraying the house and body with pesticides or wiping the body off with a towel after applying oil onto the skin, the itchy and painful symptoms continued.

Only the patient and his mother could see the bugs and not the rest of the family. To prove the bugs, he placed and peeled off a piece of scotch tape onto his arm over and over again to get the bugs. When he went to a dermatologist early February 2002 and showed his scratched skin, he was told to visit a larger hospital and was referred to our hospital. Lotion and medications did not improve the symptoms. He could not go into the house because of the bugs so he and his mother had to move out to motels from February 15, 2002. They were moving from one motel to another since bugs accumulated when they stayed in one motel too long. Even during his stay in motels, he could not sleep well because of itchy, stinging sensation in his skin. He felt egg fluid flowing down on his skin from popped eggs. He frequented public bathhouses to remove bugs on his body but it was of no use. He shaved his head feeling that he had bug eggs in his hair. Even after his mother was hospitalized, the bugs and eggs were still bothering him. He worried that the bugs could be contagious to other people but they did not. He thought that especially many bugs were present at places where he stayed for a long time. He even got into his car after opening the car door and waiting for 15 min. Upon hearing his mother got better after treatment, he visited the psychiatric outpatient clinic on March 7, 2002. Treatment was started with risperidone 1 mg/day. Although the symptoms improved after taking risperidone, he said he had a difficult time when the drug effect wore off. Currently, he is on risperidone 3 mg/day. Although he says that the bugs were gone from his body, he still feels eggs crawling in his head.

DISCUSSION

As a rare condition seen in the psychiatric field, only about 300 cases of delusional parasitosis (DP) have been sporadically reported in dermatology journals in Europe with its accurate incidence not known (9). We experienced the first cases of typical DP with SPD (shared psychotic disorder).

Patients with DP have a "conviction" over this infestation and avoid psychiatric treatment. The mother in the present

case study was referred to the psychiatric department by the dermatologist who first examined the patient with refractory dermatological symptoms at the emergency room. She voluntarily admitted herself during the first psychiatric interview wanting to change her clothes because she was suffering too much. The son voluntarily came into the psychiatric outpatient clinic after seeing the mother's treatment results. Thus, we believe that the treatment of these patients should be done in conjunction with the dermatology department.

Bhatia et al. (7) concluded that most cases of DP (88%) occur in people over the age of 45 yr in a study analyzing 52 patients using the diagnostic criteria by Munro and Chmara (12). The mother in the present case study was 55 yr old, in agreement with the result of the previous studies reporting that DP occurs mostly after middle age (7, 9, 13).

Studies report conflicting results on the relationship between gender and incidence of DP. Some report that there is no difference in the incidence according to gender (2, 3) while others report that the incidence is higher in women (5, 7). Although some studies (5, 9, 13) report that the onsets are insidious followed by chronic courses, DP occurred suddenly in our patients and lasted only a short duration maybe due to the fact that psychiatric intervention was done relatively early in these patients who showed severe symptoms; thus, early detection and psychiatric intervention seems to be an important factor in the treatment of DP patients.

According to Bhatia et al. (7), the parts of the body involved are the trunk in 52% and scalp in 40%, followed by the genital area and eyelid. However, one unique characteristic of our patients was the fact that the entire body was involved. It is also interesting to note that the mother improved first in the body followed by the scalp, and her son went through the same order of symptom improvement.

As described earlier, DP patients show a "matchbox sign" in which they would cut off a part of their body and bringing it to the doctor in a box to prove that they are infested (9, 14). Furthermore, most patients spray pesticides in their house, take a bath frequently, or change their clothes frequently to get rid of the bugs as in our patients.

Although DP is known to occur secondary to other physical illnesses, our patients were primary without any physical illness according to tests done during hospitalization.

Although several drugs are being reported in the treatment of DP (14), many studies reported an excellent result of pimozide (2, 9, 13, 15, 16), and recently of risperidone among atypical antipsychotics (17-20). According to Trabert (21) who conducted a meta-analysis of 1,223 patients with DP reported over a 100-yr period, the prognosis was better as the symptomatic duration before treatment is short, and the complete remission rate was increased by 33.9-51.9% after the introduction of antipsychotic drugs after the 1960s.

Among atypical antipsychotics, we chose quetiapine in the mother after considering its side effect profiles. But, only after we changed to pimozide the patient reported improve-

ment of the symptoms on the scalp as well as the trunk. In the case of the son, we could not observe the course of treatment in detail since he was being treated in the outpatient setting for only once a week or biweekly.

SPD is present between 5-15% in DP patients (21), and DP can occur within a family (22). As a relatively rare condition, SPD has drawn clinical interests for a long time, but the incidence of SPD is not well known. Social isolation for a long period of time is reported to be the most important predisposing factor (23, 24). Other factors include paranoid predisposition, obsessive-compulsive disorder, and paranoid personality disorder. In the case of recipient, dementia and mental retardation are frequently present, suggesting that mental retardation is a predisposing factor of SPD (25). As reported in the previous studies, the mother in the present study also showed paranoid tendency before the development of DP, and the two patients were living isolated from the society.

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