

**AN INTERVENTIONAL STUDY OF PATIENTS PRESENTING WITH SENSATION OF SOMETHING CRAWLING ON SKIN****<sup>1</sup>Dr. Amit Nagarkar, <sup>2</sup>Dr. Abhishek Somani and <sup>3</sup>Dr. Priyadarshini Tekam**<sup>1</sup>Assistant Professor, Dept of Psychiatry, Indira Gandhi Government Medical College, Nagpur, Maharashtra, India.<sup>2</sup>Associate Professor, Dept of Psychiatry, Indira Gandhi Government Medical College, Nagpur, Maharashtra, India.<sup>3</sup>Senior Resident, Dept of Psychiatry, Indira Gandhi Government Medical College, Nagpur, Maharashtra, India.**\*Corresponding Author: Dr. Abhishek Somani**

Associate Professor, Dept of Psychiatry, Indira Gandhi Government Medical College, Nagpur, Maharashtra, India.

Article Received on 11/08/2018

Article Revised on 02/09/2018

Article Accepted on 23/09/2018

**ABSTRACT**

**Background:** Delusional parasitosis (DP) is characterized by single hypochondriacal delusion in which patient feels he/she is infested with insects. In India, many patients present with the sensation of something crawling on their skin. However, these patients are not delusional and often respond to medicines other than anti-psychotics.

**Methodology:** An interventional study was carried out on patients on OPD basis. Co-morbid psychiatric illness was analyzed and patients started on anti-depressant or anti-psychotics and effectiveness of the treatment were noted. A total of 45 patients were enrolled in the study over a 3 month period. **Results:** Out of the total 45 patients, 73% were females. Daily activity was mildly affected in 33% and moderately affected in 27% respectively. 27% patients had psychotic disorders, somatoform disorders and history of nicotine abuse each. 33% patients went to dermatologist first. For psychiatric intervention, 80% patients started on anti-depressants and 20% on anti-psychotic. By end of 2 weeks, 40% patients reported at least 50% amelioration in symptoms. 80% patients had significant recovery by 4 weeks. **Conclusion:** Delusional parasitosis is considered as a severe form of delusional disorder in western literature, However, in developing countries like India, an expression of something crawling on skin is often a somatoform presentation rather than delusional. It needs to be identified as such and given proper treatment.

**KEYWORDS:** delusional, parasitosis, psychiatrist, Crawly sensation.**INTRODUCTION**

Delusional parasitosis (DP) is characterized by a belief in which patient feels he/she is infested with insects.<sup>[1]</sup> Dermatologists often find it difficult to treat, as it is not a disease of the skin, but a psychotic disorder where the person's belief is absolutely unshakable and often carries a high level of psychosocial morbidity.<sup>[2]</sup>

Dermatologists usually remain the first point of contact for an overwhelming majority of these patients. There are usually multiple visits involved with multiple investigations to rule out other dermatological disorders before psychiatric etiology is considered and patient is referred. Many of the patients coming to Psychiatric OPD for above symptoms are hard to convince that there is nothing wrong with them.

Patients of delusional parasitosis tend to collect skin pickings, lint, dirt or sometimes non parasitic household mites as proof of their parasites. They usually carry it in a small box to show it to the Doctor, the so called 'Matchbox sign'. This sign has been reported in as high as 26% cases. However, the incidence of this disorder is probably much higher because most cases of DP are

treated by dermatologists and the prevalence of the disease reported by psychiatrists only reflects a minority of this population.

List of some probable reasons for patients presenting with crawling sensation.<sup>[7]</sup>

**Physiological states**Menopause  
Pregnancy**Paresthesias**Entrapment neuropathies  
Metabolic Neuropathies  
Toxic neuropathies**HIV**Restless Leg Syndrome  
Cancer**Metabolic disturbances**

Hypocalcemia

**Drug use**

Anti-Parkinson's drugs

**Morgellon's Disease****Psychiatric Disorders**

Schizophrenia

Delusional Disorder

Obsessive Compulsive Disorder

Substance abuse &amp; Withdrawal

Anxiety Disorders

**Dermatological Disorders**

Scabies

Herpes Zoster

Idiopathic Pruritis

Adverse Drug Reaction

**Study Design**

In this study we will cover the socio-demographic profile, co-morbid psychiatric conditions and effective treatment intervention for such patients.

**RESULTS****Table 1: Socio-demographic profile of study subjects.**

Sr. No.	Characteristics	Total no.(n=45)	
1	Gender	Male	12 (27%)
		Female	33 (73%)
		<b>Total</b>	45 (100%)
2	Education	Primary level	9 (20%)
		Secondary level	24 (53.33%)
		Higher secondary level	12 (26.67%)
		<b>Total</b>	45 (100%)
3	Marital status	Married	42 (93%)
		Unmarried	3 (7%)
		<b>Total</b>	45 (100%)
4	Location	Rural	24 (53%)
		Urban	21 (47%)
		<b>Total</b>	45 (100%)

Table 1 illustrates that out of the total 45 patients maximum i.e.33 (73%) were females, only 12 (26.67%) patients studied up to higher secondary level. 42 (93%) patients were married and only 3(7%) were unmarried. When do compared with rural and urban area, both the area were equally affected wherein 24 (53%) from rural and 21 (47%) from urban area were affected.

**Table 2: Location of symptoms.**

Sr. No.	Site	Total no.
1	Head, Neck and Face	33 (73)
2	Upper extremities	9 (20)
3	Lower extremities	9 (20)
4	Abdomen and groin	15 (33)
5	Back	9 (20)

Table 2 describes the location of crawling sensation. Multiple responses by the patient were given. In this, maximum i.e. 33 (73%) patient noticed sensation over

**MATERIALS AND METHOD**

An interventional study was carried out at a tertiary care hospital, Nagpur. Total 45 patients were included in the study by universal sampling method over a period of 3 month, those presenting to psychiatry OPD. Data was collected in the form of age, sex, marital status, education, location of symptoms, effect on daily activity. After analyzing co-morbid psychiatric illness, patients were started on anti-depressant or anti-psychotics and effectiveness of the treatment were noted. Data was collected and tabulated using ms-excel and analyzed by using spss 16.0. Graphical representations were made wherever necessary.

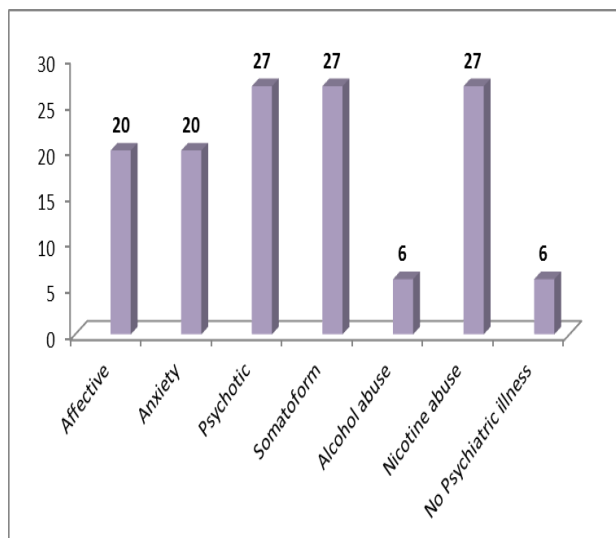
Institutional ethics committee approval was obtained.

head, neck and face area followed by abdomen and groin 15 (33%) whereas 9 (20%) patients each located symptoms over upper extremities, lower extremities and back.

**Table 3: Effect on daily activity.**

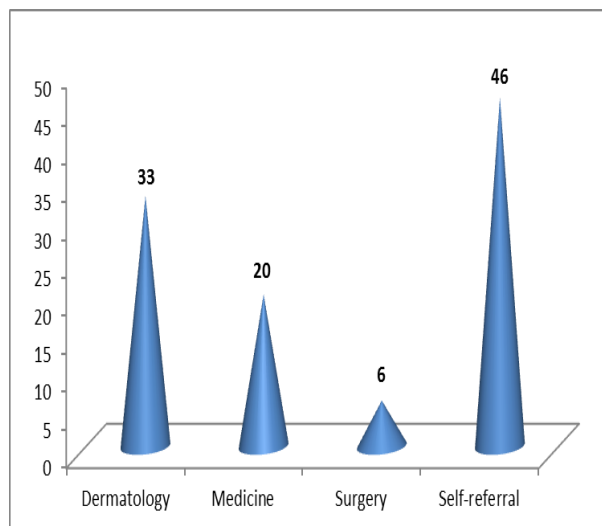
Sr. No.	Effect on daily activity	Total no. (n=45)
1	Not affected	18 (40)
2	Mildly affected	15 (33)
3	Moderately affected	12 (27)

Table 3 illustrated the effect of symptoms on daily activity. Daily activity of 18 (40%) were not affected at all While daily activity was mildly and moderately affected in 15 (33%) and 12 (27%) respectively.



**Fig 1: Co-morbid psychiatric illness.**

Fig 1 shows co-morbid psychiatric illness in study subjects. 12 (27%) patients had psychotic disorders; somatoform disorders and history of nicotine abuse each Whereas 9 (20%) patients had affective and anxiety disorders both. And only 3 (6%) patient had history of alcohol abuse whereas 3 (6%) patients had no co-morbid psychiatric illness.



**Fig. 2: Previous consultations to other specialties.**

Fig 2 depicts referral or previous consultation from other specialist. Out of the total patents, maximum i.e. 18 (40%) patients came by self-referral. Whereas 15 (33%) patients went to dermatologist first and then referred by dermatologist to psychiatrist. Similarly, 9 (20%) patients referred from medicine and 3 (6%) from surgery.

**Table 4: Intervention given in the form of medication.**

Sr. No.	Medication		Total No. (n=45)
1	Anti-depressants	Tricyclics	18 (50)
		SSRI's	18(50)
		Total	36
2	Anti-psychotics	Typicals	6(40)
		Atypicals	9 (60)
		Total	15
3	Nutritional Supplements		6

Table 4 shows out of total 45 study subjects, 36 (80%) patients were started on anti-depressants and out of these 36 subjects, 18 (50%) patients were started on tricyclic anti-depressants and 18 (50%) on selective serotonin reuptake inhibitors (SSRI) Whereas, 15 (20%) patients were started on anti-psychotic treatment. In this 6 (40%) patients had typical anti-psychotic treatment and 9 (60%) had atypical anti-psychotic Treatment.

**Effectiveness of Treatment**

1. By end of 2 weeks, 40% patients reported at least 50% amelioration in symptoms.
2. Side-effects reported were of mild nature and consistent with drug profile. No discontinuation was required in any cases.
3. Where deemed necessary, doses were further increased or new drugs added to hasten recovery.
4. 80% patients had significant recovery by 4 weeks.

**DISCUSSION**

In our study out of the total 45 patients maximum i.e.33 (73%) were females, only 12 (26.67%) patients studied up to higher secondary level. 42 (93%) patients were married and only 3 (7%) was unmarried. When do compared with rural and urban area, both the area were equally affected wherein 24 (53%) from rural and 21 (47%) from urban area were affected.

AA Foster et al.,<sup>[3]</sup> in his retrospective study on 147 patients at Mayo clinic found female-to-male ratio was 2.89 to 1; 82 (56%) were married.

C. H. Bailey et al.,<sup>[4]</sup> in their population based cohort study found that an overall age and sex-adjusted incidence of 1.9 per 100,000 person-years from 1976 through 2010. There appeared to be a trend for a difference in incidence by sex, with incidence increasing for men and women with age as well as a trend toward an increase in incidence over the past 4 decades.

Out of the total patents, maximum i.e. 18 (40%) patients came by self-referral. Whereas 15 (33%) patients went to dermatologist first and then referred by dermatologist to psychiatrist. Similarly, 9 (20%) patients referred from medicine and 3 (6%) from surgery.

AA Foster *et al.*,<sup>[3]</sup> in his retrospective study found most patients presented initially to dermatology or other specialties; only 3 presented to psychiatry. A high proportion (81%) had prior psychiatric conditions. Thirty-eight (26%) of the 147 patients had a shared psychotic disorder.

In Our study we started 80% patients on anti-depressants and 20% on anti-psychotic. By end of 2 weeks, 40% patients reported at least 50% amelioration in symptoms. 80% patients had significant recovery by 4 weeks.

Peter Lepping *et al.*,<sup>[5]</sup> in his study found that primary delusional parasitosis can be effectively treated with typical antipsychotics. Outcome is generally good, although this conclusion is limited by a possible publication bias. We confirm Trabert's,<sup>[6]</sup> finding that the introduction of typical antipsychotics has substantially improved remission rates (Trabert, 1995). Our systematic review revealed only 12 usable case reports of the use of atypical antipsychotics in primary delusional parasitosis.

## CONCLUSION

Delusional parasitosis was more common in females 33 (73%) and in married persons 42 (93%). By the end of 2 weeks of treatment, 40% patients reported at least 50% amelioration in symptoms and 80% patients had significant recovery by 4 weeks. In developing countries like India, an expression of something crawling on skin is often a somatoform presentation rather than delusional. It needs to be identified as such and given proper treatment.

**Conflict of Interest:** None.

**Source of funding:** Nil.

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