

## A Case of Olfactory Reference Syndrome

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### ABSTRACT

This is a case of Olfactory Reference Syndrome, which is described in a young student, who presented with the depressive symptoms, academic decline and interpersonal problems in the background of a firm, fixed belief about his body emanating a foul odor and consequent social withdrawal, of eight months' duration.

He was managed with Risperidone and Fluvoxamine, with insight-oriented psychotherapy and social skills training, to which he responded well.

**Keywords:** Olfactory Reference Syndrome, Somatic delusion, Taijin Kyofusho.

### INTRODUCTION

Olfactory reference syndrome (ORS) is a variant of delusional disorder of somatic type in which one believes that his or her body emits a foul odor that makes people react in a negative way to their body. This term was introduced by Pryse-Phillips in 1971. The entity lies in the transitional zone between the Obsessive-Compulsive spectrum and Delusional Disorder (Somatic type), and diagnosis is often difficult. Literature is divided on the treatment of this illness, which often has great impact on the patient's socio-occupational functioning.

### CASE Report

A 23 yrs old male, student of B.Tech (final year), from a middle class, urban family reported to our OPD with symptoms of sadness of mood, academic decline and thoughts of death for the last 02 months. History revealed onset of symptoms eight months ago, when, while in the company of his collegemates, he observed that one of them rubbed his nose while talking to him. From this, the patient concluded that he was emanating a foul odour, which was found repulsive by his friend. He felt ashamed, and excused himself from there. Following this, the patient started believing that he was always smelling bad, and started avoiding the company of his friends. In the morning, while getting ready for college, he would spend a long time taking a bath and use strong perfume to mask the supposed odour, but soon he would be convinced that nothing was working. He would choose a seat away from his friends, and avoid situations that entailed close physical proximity with them. Any conversations in a group about deodorants and personal hygiene would become a personal insult to him. At home, when his family members observed a change in his behavior, they inquired about it. On learning about his belief, they reassured him and counselled him to not pay too much attention to it. This, however, did not affect his belief, and he continued to be preoccupied with this perceived handicap. Gradually, he became withdrawn, stopped attending classes to avoid any social interaction and was unable to concentrate on his studies. Consequently, his attendance and grades dropped, and his teachers started complaining about this

sudden academic decline. His parents were also concerned about his studies, but when he tried to explain his predicament to them, they dismissed it, saying that he was making an excuse for not studying. This made him feel dejected, and his self-esteem was further lowered. He started remaining low, would remain awake at night thinking about his problems, remained fatigued throughout the day and started losing hope to pass his final year exams. He searched online for a solution, and came across an advertisement of a Homeopathic remedy for foul body odour. He tried the same for about a month, and then discontinued it for lack of desired effect. He lost hope of finding a way out, and often thought about killing himself. With these symptoms, he reported to the ER of our hospital, and was referred for Psychiatric evaluation.

Initial evaluation revealed normal general and systemic examination. MSE revealed a well-groomed boy, who sat with a slouched posture and downcast gaze, with obvious psychomotor retardation, low volume monotonous speech, depressed mood and affect, somatic delusion without any perceptual abnormalities, depressive cognitions and passive death wishes in a clear sensorium. Inv revealed a normal haematological and biochemical profile, with normal Thyroid profile, normal awake EEG and MRI Brain. Urine Drug Screen was positive for barbiturates, although history given by the patient and corroborated by parents did not reveal any medication other than the Homeopathic remedy the patient had taken till a few days before.

He was treated with Risperidone 4 mg/day and Fluvoxamine 150 mg/day, along with insight-oriented psychotherapy and social skills training. His family members were provided psychoeducation regarding the nature of illness, its treatment and prognosis. In addition, they were familiarized with the concept of 'expressed emotion' and its impact on the recovery of the patient. At three months follow up, patient's mood and confidence had improved, attendance and academic performance had picked up, and preoccupation with perceived foul body odour had reduced.

### DISCUSSION

The nosological place of Olfactory Reference Syndrome has been a subject of controversy. While in the past it has been considered a type of somatic delusion and the current DSM-5 places it in the Obsessive Compulsive spectrum, some authors have advocated it to be regarded as a separate diagnosis. It has also been equated with Hypochondriasis, Body Dysmorphic Disorder, Social Anxiety Disorder, Avoidant Personality Disorder, and also with its Culture Bound equivalent, Taijin Kyofusho. The presence of olfactory hallucinations in some cases has led to speculations about its association with temporal lobe seizures.

Global prevalence of ORS is not known, but has been estimated at 0.5%. In Japan, the prevalence is much higher (2.1%), due to diagnostic overlap with Taijin Kyofusho. No studies in India have assessed the prevalence of ORS in this population.

There are few systematic studies on ORS. One systematic review in 2011 recorded a total of 84 cases, males more than females, age of onset less than 20 years, little role of olfactory hallucinations, a recovery rate of above 2/3rd of cases, with larger role of antidepressants and psychotherapy than neuroleptics. (7) Another study on 20 patients of ORS, in contrast, found females more than males and prominent role of olfactory hallucinations. (8) The largest review, however, found a M:F ratio of 2:1, higher prevalence in unmarried individuals, age of onset as mid 20s and chronic course, with good diagnostic stability.

Etiopathogenesis of ORS includes biopsychosocial factors. General medical conditions related to ORS include epilepsy, arteriovenous malformation and substance abuse. Abnormalities related to olfactory perception have been implicated, and hypoperfusion of fronto-temporal region has been found in one case.

Depression is a commonly found co-morbidity, along with significant socio-occupational decline, social isolation and suicide as complications. Substance abuse is another common co-morbidity. Family history of Psychiatric illness other than ORS, and substance abuse, has been found.

Treatment has focused on antipsychotics (Pimozide 2-4 mg/day, Aripiprazole) and antidepressants (Clomipramine upto 200 mg/day, Paroxetine 30 mg/day), among pharmacological measures. (11), (12) Other somatic treatments, such as benzodiazepines, ECT and leucotomy have largely proved ineffective. Among Psychological treatments, a wide range of options have been tried, such as analytic psychotherapy, relaxation, paradoxical intention, ERP and CBT, with unproven efficacy in long-term.

In summary, Olfactory Reference Syndrome is a diagnostic enigma, with sparse literature on its prevalence, etiopathogenesis and long term treatment outcome, albeit with promising short term prognosis on treatment with pharmacotherapy and non-pharmacological measures.