

Hallucinations of Bodily Sensations in Schizophrenia Patients: A Case Series.

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ABSTRACT

Hallucinations of bodily sensations are also known as the hallucinations of the “proximity senses”. Broadly, they are of two types: tactile and somatic. They are known to occur rarely, and even more so in psychiatric illnesses. In psychiatric illnesses, it is usually pathognomonic of psychotic illnesses, especially Schizophrenia. In this case series, six cases of Paranoid Schizophrenia having hallucinations of bodily sensation have been evaluated. This is to emphasise that while these hallucinations are rare, they are more often overlooked. Further research is warranted to bring to light these hallucinations, so that they are not missed in clinical settings.

Keywords: Hallucinations of bodily sensations, somatic hallucinations, tactile hallucinations, Schizophrenia, psychotic illness.

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Introduction

Hallucinations have a central role in psychotic illnesses. Auditory hallucinations are the most common, with nearly 74% of those suffering from Paranoid Schizophrenia being estimated to experience auditory hallucinations. Estimates of visual hallucinations in Schizophrenia are varied, with different studies giving a range between 16% to 60% [1]. However, the prevalence of hallucinations in other modalities are rare. Olfactory, gustatory, and bodily hallucinations are rare in purely psychotic illnesses, and are more likely to occur in organic states [1,2]. Hallucinations of bodily sensations are referred to as the hallucinations of the “Proximity senses”, as opposed to the hallucinations of the “Distance sensations”, which are auditory, visual, olfactory and gustatory hallucinations [3]. They are intracorporeal hallucinations and are not unitary, in that there are different kinds of bodily sensations and hence, different kinds of corresponding bodily hallucinations. A classification of hallucinations of bodily sensations has been depicted in Table 1.

Tactile hallucinations are defined as abnormal perceptual experience of touch without a stimulus for the same. It is characterised by a superficial sensory experience on the skin, and simulate any usual sensation such as the feeling of pin pricks, a hand, a breeze, or a punch. Even though they are rarely encountered in psychiatric and neurological conditions, they are the second most common hallucinatory experience in the normal population, the yearly incidence being 0.31% second to 0.33% of visual hallucinations. This phenomenon is experienced in various psychiatric as well as neurological conditions. Existing literature mostly emphasise the organic and toxic conditions in which tactile hallucinations are experienced, such as in substance abuse, medication abuse, and neurodegenerative illnesses; with the pathology lying in overactivation of sensory cortical areas [5]. Psychiatric cases showing this illness are usually psychotic in nature [1,2].

Somatic hallucinations are defined as abnormal perceptual experience within the body without an identifiable source or

reason for the same. It is often non-distinguishable from vague medical complaints which may lead the clinician to search for an objective pathology, tending further away from the actual cause. Various laboratory and radiological procedures are advised, further confounding the diagnosis. Some examples are: a sense of vibration, being rocked about, limbs being bent and muscles being squeezed (kinaesthetic hallucinations); and feelings of pain, palpitations, heaviness, distension (visceral). Literature on somatic hallucinations is even lesser as compared to tactile hallucinations, and similar to tactile hallucinations, are mostly focussed on the neuropathologic conditions, such as temporal lobe epilepsy, brain lesions, migraine, and toxic states. The brain areas involved are the somatosensory cortex, parietal cortex, and limbic system. They are a very rare occurrence in psychiatric conditions, are mostly confined to the psychotic illnesses [3]. This case series is a first of its kind in reporting six different cases of hallucinations of bodily sensations experienced in Schizophrenics, covering phenomenology of both the tactile and somatic type.

Case Reports

Case 1

A middle-aged married woman living in an urban area with her husband and children, presented with fear that everyone is going to kill her, hearing voices of her relatives since 5 months. Additionally, she was experiencing a current-like sensation which would originate in her genitalia, and "Consume" her whole body travelling upwards. Due to this, she was unable to perform her routine activities. She had attempted suicide 3 times in the last 7 days. The onset of illness was triggered by worry regarding a swelling in her left breast. She had similar symptoms in 2015 and 2016, for which she was treated with antipsychotics and had attained complete remission within 2-3 weeks of starting treatment. Mental status examination revealed Delusions of Persecution, Reference and Guilt, Somatic Delusion, 2nd and 3rd person Auditory Hallucinations, Visceral Hallucinations, and active suicidal intent. Due to the presence of persistent auditory hallucinations and delusions, patient was diagnosed as a case of Paranoid Schizophrenia, Episodic Remittent, currently in her 3rd episode of illness. Aetiologically, psychological factors were traits of Schizoid Personality, and perpetuating factor being poor compliance to treatment. Patient was advised urgent admission due to risk of suicide. Suicidal precautions were implemented, 2nd generation antipsychotic was started and ECT was planned after appropriate work-up. Ultrasonography of pelvis and abdomen, and kidney-ureter-bladder were done to rule out any abdominal pathology. Daily assessment of suicidal risk and intent was performed. After up-titrating antipsychotic to maximum dose, and completion of 6 cycles of ECT, patient was discharged with near-total

improvement. She was advised to be compliant to treatment and maintain strict follow-ups.

Case 2

An adolescent school-going girl from an urban setting was brought to the Psychiatry OPD by her mother due to extreme distress from the belief that someone was touching her inappropriately over her breasts and genitalia since the last 3 months. She was also hearing voices of some men taunting and teasing her, and had become fearful and suspicious of the intent of every male she would encounter, even her father. The onset of illness was preceded by an argument she had with a friend she was very fond of. On examining her mental status, patient was an undernourished and unkempt. She was sobbing and maintaining eye contact. Affect was dysphoric, restricted, and mood-congruent. She had delusional passivity of sensation secondary to haptic hallucinations, delusion of persecution, and 2nd person auditory hallucinations of derogatory type. Adding to the aforementioned findings there was significant behavioural changes that the patient had undergone in the form of social withdrawal and loss of interest in daily activities. Based on the above a diagnosis of Paranoid Schizophrenia was made. Family history revealed presence of similar illness in her maternal grandmother, who went missing nearly 10 years ago, after wandering away.

All relevant routine investigations were within normal limits. She was started on the minimal effective dose of a 2nd generation antipsychotic. For extreme agitation and distress, she was often given a combination of low doses of haloperidol and promethazine, intramuscularly. Patient reported near-total improvement at the end of 3 weeks. She was discharged at maximum effective dose of the same antipsychotic, and is currently maintaining well on second generation antipsychotics, and has been counselled to stay compliant for at least 2 years.

Case 3

A 27-year-old male of a lower caste presented with hearing voices of an upper caste male, who was talking to the patient from 200 km away from the patient's native town, since 6 months. This man was also exchanging the patient's eyes, nose and tongue with diseased eyes, noses, and tongues of others, in an attempt to heal them and restore them to their owner. Due to the altered tongue, patient was constantly aware of a foul smell due to which he had lost appetite. On looking at his mirror reflection, he was unable to recognise his eyes and nose as his own. About 15 months ago, patient had been diagnosed as a case of Paranoid Schizophrenia due to symptoms of fear that someone was coming to kill him. He was started on antipsychotics and attained near-total improvement in the next four months and then stopped treatment. Mental status examination showed patient

avoiding eye contact. He had second person auditory hallucinations, olfactory, gustatory and kinaesthetic hallucinations. Patient also had somatic passivity, somatic and persecutory delusions, and mirrored-self misidentification. Patient was diagnosed with Paranoid Schizophrenia and was hospitalised due to the acute nature of presentation. He was started on Olanzapine and showed nearly 50% remission over the next twenty days, after which he was discharged.

Case 4

A middle-aged married lady with a graduate degree, living in an urban area with her husband and children, presented to the Psychiatry OPD with her son, due to hearing voices of 3 women from her neighbourhood commenting on her daily life and discussing the same amongst themselves for 2 years. She was also suffering from various pains and discomforts, such as – burning sensation starting in her toes and “Bursting” within her thighs; stabbing pain in her upper abdomen, which made she suspected her internal organs are decaying; and throbbing headache which would worsen with stress. She was also feeling like she is being followed by someone, whenever she would go out. Patient had been diagnosed as a known case of Paranoid Schizophrenia 5 years ago, for symptoms of hearing voices of her relatives talking to her and amongst themselves, firm belief that somebody wishes to harm her, and that people around her were looking at her. She was treated with Tab. Risperidone, showed near-total improvement and was maintaining well for the next 3 years, until she stopped treatment during her daughter’s marriage. Patient is also a known hypertensive since 5 years and is maintaining well on antihypertensives. Mental status examination revealed distressed mood and restricted, mood-congruent affect. Somatic delusions, nihilistic delusions, and delusional perception were present. She also had 2nd person and 3rd person auditory hallucinations as well as visceral hallucinations. A diagnosis of Paranoid Schizophrenia was made and she was hospitalized. Relevant investigations including electrocardiogram were all within normal range. She was restarted on 4 mg of oral Risperidone with gradual improvement. She maintained regular follow-up and is currently maintaining well on 8 mg of Risperidone, with 2 mg

of Trihexyphenidyl. She has been counselled for taking regular treatment for a minimum of 5 years, if not lifelong.

Case 5

A middle-aged widow, uneducated and non-functional, hailing from a rural area but living currently in an urban setting, was brought to the Psychiatry OPD by her daughter, with the insidious onset of pain in all parts of her body due to which she was unable to move at all, in the past 3 months. She believed that the pain was due to huge gaps in her joints, due to which her bones were falling out of place. She also believed that her anus and vulva were going inwards, due to which she was unable to defecate and urinate comfortably. She believed that due to the shrinking of her chest organs, she was unable to breathe or swallow food and water. She believed she was going blind. She was distressed due to these symptoms. She was also hearing voices of 10-12 people discussing amongst themselves how they would beat her up, due to which she was fearful. Patient was a diagnosed case of Hypertension on irregular treatment. Patient’s husband and son had both passed away due to complications arising from excessive alcohol consumption. Mental status examination revealed no eye-contact as patient believed she was visually impaired. Motor activity was reduced, patient was non-ambulatory. She had somatic delusion, and delusion of persecution. She had visceral hallucinations secondary to the somatic delusion, and 3rd person auditory hallucination which were of threatening nature. Insight was poor. With a diagnosis of Paranoid Schizophrenia, she was hospitalized. All relevant investigations were within normal limits. Patient responded well to Risperidone 8 mg. She reported improvement in biofunctions, sensation of pain, inability to swallow and auditory hallucinations. However, the belief that her joints were gaping and her internal organs were malfunctioning remained. She was lost to follow-up.

Case 6

A 30-year-old married lady presented with complaints of distress that her neighbours were speaking ill of her and were planning to abduct her child, since 11 months. She was certain of this because she could hear them speaking about their plans against her nearly all the time. In the last three

Table 1: A classification of Hallucinations of Bodily Sensations [3, 4]

Type	Description	
Tactile or Superficial	Thermic	Abnormal perception of temperature
	Haptic	Abnormal perception of touch
	Hygric	Abnormal perception of any fluid on the skin
	Paraesthesia	Abnormal perception of tingling sensation
Somatic	Formicative	Abnormal perception of insects, ants, bugs or the like crawling on the skin or just beneath it
	Visceral	Abnormal perception of muscular or joint sensations
	Kinaesthetic	Abnormal perception of the inner organs, e.g., various types of pain, stretchiness, heaviness, distension

months, patient had begun to feel that insects were constantly crawling on her scalp, due to which she had repetitive urges to scratch her head. The discomfort due to the insects were sometimes severe enough for her to scratch till she bled.

Findings of her mental status examination were delusions of persecution and reference, delusional parasitosis, tactile hallucinations, obsessions and compulsions, and third person auditory hallucinations. She was diagnosed as a case of Paranoid Schizophrenia with Obsessive Compulsive Disorder. Patient was hospitalised and started on oral antipsychotics and selective serotonin reuptake inhibitors after which auditory hallucinations improved remarkably in the next 10 days, but delusions and obsessions were still intact. She was discharged and showed near-total improvement in the next 6-7 months follow up

Discussion

Out of six cases of Paranoid Schizophrenia, one is with a comorbid diagnosis of obsessive-compulsive disorder; all of whom have hallucinations of bodily sensations as a part of their phenomenology. Although rarely found in psychiatric cases, they mostly occur in cases of Schizophrenia [1, 6]. There are four cases of somatic hallucinations: three of visceral type, and one of kinaesthetic type; and there are two cases of tactile hallucinations: one of haptic and one of formicative type. Our finding is not in tandem with the literature suggestive of a higher prevalence of tactile hallucinations, as compared to somatic hallucinations. One case of tactile hallucination of formicative type is also associated with obsessive thoughts of scratching her head, and yielding compulsions of scratching her forehead. The tactile hallucination developed alongside the obsessive-compulsive symptoms. Literature supports this finding, suggesting that tactile hallucinations are associated with obsessive compulsive disorder as well [2]. Four of the six cases also show somatic delusions, a finding which is common in hallucinations of bodily sensation. However, studies also suggest that hallucinations of bodily sensation are not usually associated with persecutory or referential delusions, but that was not in our case series, as five of the six cases had these paranoid delusions [1]. While literature suggests that this type of hallucination is associated with a younger age of onset, this study has three cases with an onset at middle-age and three with an onset at a younger age. Somatic and tactile hallucinations usually occur along with hallucinations in other sensory modalities as evidenced by all the cases of this study. Auditory hallucinations comprise the most common of the co-occurring hallucination seen in all the cases, olfactory and gustatory are seen in only one [7].

Conclusion

Hallucinations of bodily sensations are rarely encountered and infrequently discussed in clinical research. However, a major contributing factor to this is the lackadaisical attitude these hallucinations are overlooked in diagnosis and are given attention only sparingly, being rendered an accessory finding rather than a core one. It is time these hallucinations are addressed with equal importance in clinical settings and diagnoses.

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