CASE REPORT

POST STROKE OTHELLO SYNDROME: A RARE CLINICAL PRESENTATION OF RIGHT PARIETAL LOBE INFARCT

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ABSTRACT

Background: Delusional jealousy also known as Othello syndrome has been described as a part of various neurological and psychiatric conditions.
Case Description: Here, we present a case of a 65 year old male patient who developed a delusion of infidelity subsequently after a right parietal lobe infarct.
Discussion: Our patient had developed OS subsequently after right parietal lobe infarct. However, not many case reports have been previously documented wherein an elderly patient developed delusion of infidelity with parietal lobe lesions.
Conclusion: Hence, this case may be indicative of previously unstudied areas of the brain being involved in the pathophysiology of delusion syndromes, which warrants further research.

Key Words: Othello Syndrome, Delusion of Infidelity, Right Parietal Lobe.

INTRODUCTION

Morbid jealousy or delusional jealousy, also known as Othello Syndrome(OS), a name inspired by the Shakespearean character of the same name who murdered his wife as a result of a false but unshakeable belief of her unfaithfulness, is an uncommon entity in clinical practice. OS is characterized by a set of irrational thoughts and emotions, with extreme or unacceptable behaviour, in which the dominant theme is the concern with the sexual partner's infidelity not based on concrete evidence[1].

The eponym was first coined by the English psychiatrist John Todd[2] (1914-1987) in a paper he published in 1955. It is seen as a part several neurological and psychological conditions such as stroke, brain tumours, head trauma, multiple sclerosis and other neurodegenerative disorders, alcoholism, Alzheimer's disease and paranoid schizophrenia[4] although it is a clinical rarity. Even more seldom encountered is the development of Othello syndrome amongst other psychosis, in the period following a stroke. In a few cases previously reported, the left frontal lobe[4] right sided areas including head of the caudate nucleus, globuspallidus, putamen and internal capsule[5] and right basal ganglia[6] have been implicated in the development of post-stroke Othello syndrome. Our patient was a 65 year old male who presented to us with the morbid conviction of his wife's infidelity after sustaining a right parietal lobe infarct.

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CASE SUMMARY

A 65 year old male patient, a right handed former farmer was brought to the Psychiatry department. The patient suffered from a stroke two and a half years ago. He developed left sided weakness which resolved partially over time. The son reported erratic behaviour displayed by his father in the last two and a half years, onset being soon after the stroke. He held the firm belief that his wife was having an affair with one of his friends since the last two and a half years. The patient was also under the impression that his family members (including his wife) were conspiring to harm him and refused to take medication given by them because he suspected that they were trying to poison him. He also had nicotine dependence and past history of alcohol abuse 2 years prior to the stroke.

His blood investigations including haemogram, liver function tests, renal function tests, thyroid function tests, vitamin B12 levels and serum electrolytes were all found to be within the standard normal range. Magnetic Resonance Imaging (MRI) of the brain performed with contrast revealed right parietal chronic infarct with encephalomalacic changes, age related neuroparenchymal atrophy with periventricular ischemic changes.

On examination, patient had a blood pressure of 130/80 mmHg, respiratory rate of 18 cycles/minute and pulse rate of 78 beats/minute. Cardiovascular, respiratory and abdominal examinations were essentially normal. Examination of the central nervous system including

higher mental function tests revealed slightly reduced power of the left lower limb with no other sensory, motor deficits or cognitive impairment.

Patient was placed on IM Injection Flupentixol 20 mg due to non-compliance to oral medication. During his 3 days as an inpatient he was also put on oral medication and was discharged on oral Flupentixol 1 mg/day, Amlodipine 2.5 mg/day, Aspirin 75mg/day and Atorvastatin 10mg/day.

Patient came for follow up eighteen days after discharge along with his son who reported a noticeable improvement in his behaviour and a reduction in acting out towards his family members. Patient has been advised deep IM Injection Flupentixol 20 mg once every fortnight, and to continue his oral medication.

DISCUSSION AND CONCLUSION

OS has previously been described in patients with Alzheimer's disease and Parkinson's disease [7, 8, 9].Though our patient's MRI showed age related neuroparenchymal atrophy, there was no history suggestive of features of Parkinson's disease with cognitive decline nor was there any positive past and family history of neuropsychiatric illnesses.

Focal lesions to the right hemisphere and right frontal lobes of the brain have been implicated in content specific delusions such as OS and Capgras syndrome due to over compensation (or release of inhibition) by the left brain. This consistent pattern was reported in a notable study by Devinsky[10,11]. Our patient had developed OS subsequently after right parietal lobe infarct. However, not many case reports have been previously documented wherein a patient developed delusions with parietal lobe lesions only, without frontal lobe involvement[7].

This syndrome is notoriously known for its forensic aspects, which are well studied and documented and involve risk for suicide, homicide and other criminal acts such as stalking, verbal and physical abuse[12,13]. While our patient did not currently demonstrate any violence towards his wife or suicidal ideation, the possibility of such tendencies to develop in the future cannot be ruled out, as suggested by previous literature. This indicates the necessity for a rigorous treatment of the syndrome as outcomes can prove to be disastrous.

Hence, this case may be indicative of previously unstudied areas of the brain (namely the right parietal lobe) being involved in the pathophysiology of organic psychoses including delusion syndromes, which warrants further research.

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