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Organic causation of morbid jealousy

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ABSTRACT

This article describes the organic contribution to morbid jealousy. Although the true prevalence of morbid jealousy is unknown, organic factors contribute significantly to its development. We present an assortment of five case histories to highlight the importance of organic causation in this phenomenon.

The first two cases portray organic delusional disorder arising as an aftermath of cerebral infarcts. They are both associated with left sided brain lesions.

Though organic processes generally respond poorly to treatment, case 3 (patient with head injury), is unusual as it describes a young man whose symptoms resolve on recovering from the effects of a head injury.

Likewise, case 4 (patient with a meningioma) who made a complete recovery following surgery, emphasizes the need for early detection of reversible causes.

The difficulty in identifying the common substrate for a phenomenon with such a wide variety of causations is amply displayed by the abundance of theories forwarded. The blurred demarcation between normal jealousy and pathological jealousy leads to further uncertainty. The excess representation of morbid jealousy in organic conditions is not enlightened by these theories. Organic pathology, by affecting the higher centers of the brain, may remove the control over instinctual behaviour. Evidence for this is hard to establish but the evolutionary perspective of jealousy akin to that of the animal kingdom alludes to possible explanations.

1. Introduction

The emotion of jealousy entwined with the accompanied sense that the loved one belongs to oneself is a normal human experience (Sims, 2003). It has a social value in preserving the family and an advantage in evolutionary terms of preserving one's own gene pool (Daly et al., 1982). However, jealousy which is maladaptive and dysfunctional causing disruption and distress in the relationship can be regarded as morbid (Marks and De Silva, 1991).

In marital and other long-term relationships assumptions about the exclusivity of the couple and the priority one should have for the other can lead the individual concerned to interpret certain behaviours as violations of these understandings, and to fear that they are losing their place in the partner's affection. This can give rise to jealousy (De silva, 2004). Morbid jealousy is a disorder of content of thought (Sims, 2003), and the term "delusion of jealousy" is in fact a misnomer, as it is the fidelity of the partner which is suspected (Shepherd, 1961). It may manifest in various forms such as a delusion, an overvalued idea or an obsessional thought and the underlying morbid process could be schizophrenia, depression, delusional disorder, personality disorder, alcohol abuse or organic disorders. Morbid jealousy, also known as Othello Syndrome, therefore can be regarded as a syndrome and not a disorder. It can be identified as a descriptive term.

The true prevalence of morbid jealousy is unknown. Even though Enoch and Trethowan considered it as an uncommon disorder, clinicians encounter this syndrome routinely (Michael and Harvey, 2004). Among those who suffer from it, almost 15% were found to have an organic psychosyndrome (Mullen and Maack, 1985). A wide variety of cerebral insults have been shown to be associated with it (Cobb, 1979). Association of this syndrome with head injury such as Punch-Drunk syndrome in boxers following multiple contra-coup contusions has also been described (Lishman, 1998). A recent case report suggested lesions in the right orbito-frontal cortex in development of morbid jealousy (Narumoto et al., 2006). However, this condition has also been shown in patients with non-focal cerebral conditions such as Normal Pressure Hydrocephalus (Yusim et al., 2008) and Parkinson's disease (Cobb, 1979). We present the following case histories to highlight some of the important aspects of organic causation of morbid jealousy.

2. Case 1

A 68-year old father of four children developed persistent right homonymous hemianopia and a degree of expressive dysphasia

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during the 6 months prior to the admission. Although pre-morbidly he was a carefree sportsman, a loving husband and a concerned father, over the last 2 months he has become fully convinced of his wife's unfaithfulness and has been denying the paternity of his youngest son. This was found from the wife's account and non-verbal clues such as the following: He has been following his wife, cross checking her, accusing her of infidelity and demanding sexual relations with her. He had threatened a neighbor believing him to be his wife's lover. He was irritable and was seen to be crying at times. His sleep was poor; he had lost weight.

He also had other depressive symptoms with suicidal ideas. He was violent and refused admission. On neuropsychiatric evaluation he had nominal aphasia, acalculia, dysgraphia and right-left disorientation (Gerstmann's Syndrome). Abstract reasoning and associations were also affected. A CT scan showed old infarcts involving left temporal, parietal and occipital lobes. He was diagnosed as having organic delusional disorder with secondary depression. His psychotic and depressive symptoms improved to some extent with a combination of Quetiapine and Sertraline and the family was able to contain him (Table 1).

3. Case 2

A man in his fifties was admitted for displaying hostility towards his wife and children for a period of 2 years. He was suspicious and insisted that his wife taste the food served to him. He accused his wife of infidelity. There were restrictions imposed on her and he frequently checked on her whereabouts and interrogated her. When alone, he heard voices talking about him. He had attempted suicide by ingesting varnish 2 months prior to the presentation. He had a past history of heavy alcohol misuse, though he stopped drinking 3 years ago. He was also undergoing treatment for hypertension but the compliance was poor. Pre-morbidly he had been a caring person but sensitive to criticisms. In the ward he was withdrawn and irritable. He constantly watched his wife during her visits. He had long standing gait ataxia and left sided cerebellar signs. He was diagnosed as having organic delusional disorder. A CT scan of the brain showed lacunar infarctions in left corona radiata, left external capsule, and right caudate nucleus. Thyroid and hepatic screens were normal. He was started on Quetiapine and the response after 2 months of treatment remained poor.

4. Case 3

A 32-year old man presented 2–3 weeks after a head injury. He suspected his wife of having extramarital affairs and was verbally and physically aggressive towards her. He had delusions of jealousy. He had concentration difficulties and short-term memory impairment as well. The CT scan of the brain showed changes consistent with a contusion of the left temporoparietal region.

Pre-morbidly he had been sociable, outgoing and well adjusted. He was treated with Olanzapine and Carbamazepine (given as a prophylactic against seizures) and his symptoms resolved completely after several months of treatment. The repeat CT scan of the brain after recovery was normal and medication was successfully tailed off.

5. Case 4

A previously stable 40-year old school teacher was brought for treatment with suspiciousness of 6–8 months duration. She firmly believed that her husband was having sexual relationships with younger women and that he was trying to poison her. She also had word finding difficulties. Though pre-morbidly shy, during the last few months she had become aggressive and violent towards the husband. Her response to antipsychotics remained poor and the CT scan of the brain done subsequently revealed a meningioma of the left parietal lobe. Her psychotic symptoms improved to a great extent following surgery.

6. Case 5

A 70-year old female was brought in because she firmly believed that her husband was having affairs with younger women who were coming to him in the night. She desperately attempted to close the doors and windows and became increasingly aggressive. There was a history of progressive memory impairment for a period of 1 year. Previously she had been a less sociable but independent housewife. She needed assistance in activities of daily living and her Mini Mental State Examination (MMSE) score was

Table 1
Summary of the five case histories.

	Case 1	Case 2	Case 3	Case 4	Case 5
Age	68 years	58 years	32 years	40 years	70 year
Sex	Male	Male	Male	Female	Female
Occupation	Retired shop owner	Ex-Policeman	Truck driver	Teacher	Housewife
Marital status	Married	Married	Married	Married	Married
Diagnosis	Organic delusional disorder with secondary depression due to cerebrovascular accident	Organic delusional disorder due to cerebrovascular events	Organic delusional disorder following head injury - cerebral contusion	Organic delusional disorder due to meningioma	Organic delusional disorder due to Alzheimer's dementia
Neurocognitive signs and symptoms	Right homonymous hemianopia, expressive dysphasia, nominal aphasia, acalculia, dysgraphia, right–left disorientation (Gerstmann's Syndrome)	Gait ataxia, left sided cerebellar signs	Difficulty in concentrating, short term memory impairment	Word finding difficulties	Progressive memory impairement, MMSE = 12/30
CT scan	Old infarcts involving left temporal, parietal, occipital lobes	Lacunar infarctions in left corona radiate, left external capsule, right caudate nucleus	Left temporo-parietal brain contusion	Meningioma of left parietal lobe	Generalized cortical cerebral atrophy
Treatment	Quetiapine Sertraline	Quetiapine	Olanzapine carbamazepine (for seizure prophylaxis)	Surgical removal of meningioma	Quetiapine
Response	Some improvement	Poor	Complete recovery	Recovered to a great extent	Poor