

# Clinical Characterization, Course, and Treatment of Othello Syndrome: A Systematic Review of the literature

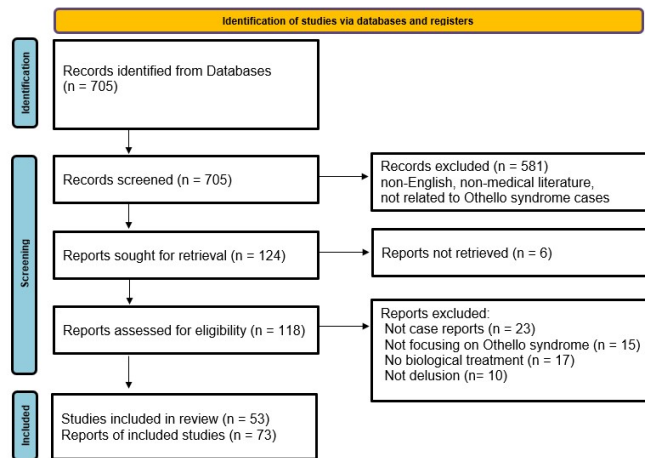
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## BACKGROUND

- Othello syndrome (OS)** is a condition characterized by a delusion of jealousy, specifically a fixed false belief that one's spouse is having extramarital affairs with consequent strain to marital relationships.<sup>1</sup>
- For patients with OS, CL psychiatrists may be asked to assist with evaluating the differential diagnosis, assessing safety, and developing treatment options.
- We present a systematic review of published case reports with the goal to solidify current knowledge of the clinical presentations and management of OS.

## PRISMA FLOW DIAGRAM



## SUMMARY OF LITERATURE REVIEW ON OTHELLO SYNDROME

	OS due to primary psychiatric disorder	OS due to another medical condition	OS due to medication or substance	Total
Number of patients	16 (22%)	38 (52%)	19 (26%)	<b>73</b>
Mean age (year) [range]	57.3 [27-98]	60.2 [25-85]	55.1 [28-79]	<b>58.2 [25-98]</b>
Sex (M/F)	10/6	23/14 (+1)	14/5	<b>47/25 (1.88) (+1)</b>
Duration of delusion prior to the presentation [range]	94.3 months [0.5-240]	22.0 months [0.03-132]	14.9 months [0.5-36]	<b>39.5 months [0.03-240]</b>
Physical violence	10 (62%)	9 (24%)	6 (32%)	<b>25 (34%)</b>
Most common Antipsychotics	pimozide (5)	quetiapine (8)	quetiapine (7)	
Treatment response				
Remission	11 (69%)	24 (63%)	16 (84%)	<b>51 (70%)</b>
Partial remission	3	6	1	<b>10 (14%)</b>
Non-response	2	8	2	<b>12 (16%)</b>

## RESULTS

- 16 cases of primary psychiatric disorder - 13 delusional disorder, 2 schizophrenia, 1 bipolar disorder
- 38 cases of other medical condition - 17 cerebrovascular accident (CVA), 6 major neurocognitive disorder (NCD), 2 meningioma, 1 pituitary adenoma, 1 large cell lung cancer, 1 bronchus carcinoma, 2 TBI, 1 anoxic brain injury, 1 Celiac disease, 1 corticobasal syndrome, 1 COVID-19, 1 NPH, 1 DBS in Parkinson's disease (PD), 1 polydipsia, 1 Wilson's disease
- 19 cases of medication/substance - 16 dopaminergic agonist, 3 methamphetamine
- Treatment: antipsychotics use in 57 cases, antidepressants use in 14 cases
- Most common comorbid psychiatric Sx: depressed mood in 14 cases (19%)
- Most common comorbid psychiatric Dx: alcohol use disorder in 9 cases (12%)
- Brain imaging results: 12 right-sided vs 8 left-sided, 9 frontal lobe among 20 focal insults

## DISCUSSION

- Delusional disorder, CVA, and the use of dopaminergic agonists in PD were the most common etiologies within each group.
- Antipsychotics were the main biological treatment of choice (78%) and many cases achieved complete remission.
- Antidepressants augmentation strategy was used when there was comorbid depressed mood.
- Though neurodegenerative disorders, especially major NCD, were reported to be associated with OS, the underlying pathophysiology and clinical courses are still unclear.
- Though previous studies<sup>2</sup> considered OS to be associated with dysfunction of the right frontal lobe, our review suggests the possibility of problems in a complex network of neurocircuitry, rather than a single focal lesion.

## CONCLUSIONS

- OS was a manifestation of several neuropsychiatric conditions.
- Treatment was delayed more than 3 years on average, but OS appeared to respond well to antipsychotic medications.
- 1/3 of cases included violent behaviors, especially in those with a primary psychiatric disorder.
- Available data did not localize OS to a specific brain region.

## REFERENCES

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