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The NMDA Receptor Antagonists for Treatment of Catatonia in Adults: Review

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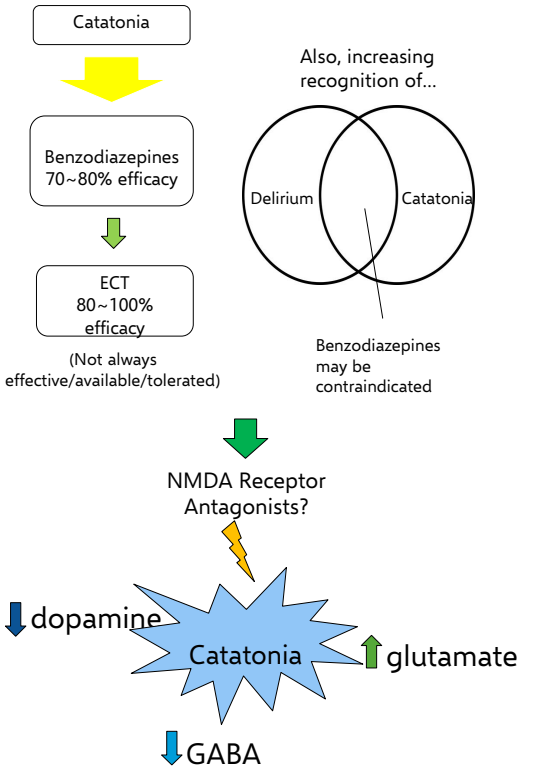
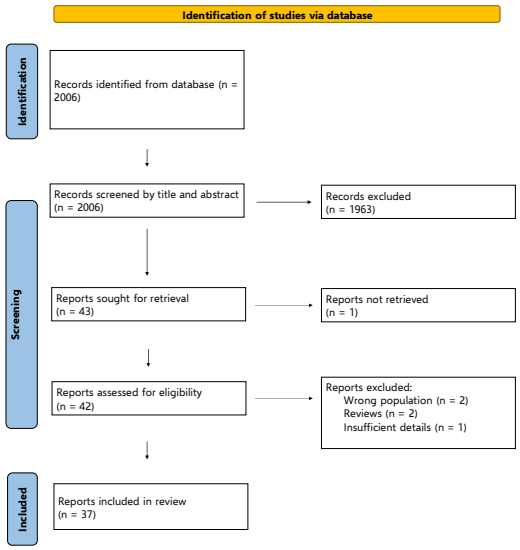
Background



Methodology

Systematic Review



Results

	Amantadine	Memantine	Ketamine & Esketamine	Minocycline	dextromethorphan /quinidine
# of cases	26	20	6	2	1
age (mean ± SD)	37 ± 16	49.2 ± 18.6	52.5 ± 20.8	42 ± 19	65
gender (%)	male (46.2); female (53.8)	male (60); female (40)	male (16.7); female (83.3)	male (100); female (0)	male (100); female (0)
reported malignant feature (%)	7.7	0.1	0	0	0
reported excited feature (%)	3.8	10.5	0	0	0
presumed underlying psychiatric diagnosis (%)	SCZ (65.4) SCAD (7.7) BPAD (11.5) MDD (3.8) BPD (3.8) ASD (7.7)	SCZ (30) BPAD (5) MDD (15) unspecified depression (5) CB withdrawal (5) none reported (35)	BPAD (33.3) MDD (33.3) none reported (33.3)	SCZ (100)	SCAD (100)
reported acute underlying medical illness (%)	3.8	55	33.3	100	100
reported concurrent delirium (case #)	none reported	4	none reported	none reported	none reported
most commonly reported catatonic symptoms (%)	mutism (80.8) posturing (73.1) rigidity (53.8)	mutism (75) negativism (55) immobility (45)	mutism (100) stupor (50) negativism (50)	stupor (100) negativism (50)	stupor (100)
Bush-Francis scale score, if available (average)	35.4	21.7	12.3	not available	24
benzodiazepine used for treatment (%)	30.8	90	50	0	100
benzodiazepine continued for treatment (%)	15.4	45	0	0	100
ECT used for treatment (%)	3.8	10	50	0	0
dosage used, if available (range; mean)	100~600mg; 334.8mg	5~30mg; 16.3mg	ketamine (0.17~0.5mg/kg; 0.35mg/kg) Esketamine (unavailablle)	150mg	20mg/10mg
monotherapy vs augmentation (%)	monotherapy (73.1); augmentation (26.9)	monotherapy (50); augmentation (50)	ketamine - monotherapy (80) esketamine - monotherapy (100)	augmentation (100)	monotherapy (100)
reported onset of response (range)	within 24 hours ~ 3.5 months	within 24 hours ~ 3.5 months	15 minutes ~ 2 hours	2 weeks	a week
full resolution reported (%)	69.2	75	ketamine 25% esketamine 100%	unclear	100

Conclusion

- In adult patient population, NMDA receptor antagonists may play a role in the pharmacologic management of catatonia either as monotherapy or as an adjunct to existing therapies, particularly when those treatments are ineffective or contraindicated.
- Randomized-controlled clinical trials on the efficacy of these agents compared to lorazepam are desirable with careful consideration of important issues, including recruiting and consenting patients with severe catatonic symptoms.

QR codes

Abstract

Link to Manuscript Online

Lee JH, Suzuki J. N-methyl-d-aspartate (NMDA) receptor antagonists for treatment of catatonia in adults: Narrative review. Gen Hosp Psychiatry. 2024 Nov;91:60–5.

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