

Naltrexone

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tic hyperactivity. Several studies also show that it can increase social behavior, eye contact, and verbalization, and reduce aggressive and stereotypical behavior.

Sandman recommends a dosage of .5 to 1.5 mg/kg, saying that "the consensus is that doses above 1.5 mg/kg generally are less effective." He notes, however, that "patients with severe SIB . . . responded to the highest dosage." Other researchers have found that higher dosages can exacerbate symptoms. A recent study by Jaak Panksepp and Patrick Lensing (see ARRI 5/3) found that low doses of naltrexone given every third day offered good results, while higher doses caused panic symptoms, relapses, and excessive clinginess.

New study shows additional benefits

A recent case study reported by D. V. Taylor et al. in the *Journal of Pharmacology, Biochemistry and Behavior* indicates that in addition to reducing self-injury, naltrexone may positively affect memory and learning.

Taylor and colleagues administered naltrexone twice a week at varying dosages (.5, 1 and 2 mg/kg) to a 20-year-old mildly retarded autistic male who exhibited severe self-injury.

"All doses of naltrexone abruptly and dramatically attenuated self-injurious behavior (SIB) in [an] unstructured residential setting, without causing sedation of the patient," the researchers report. "Further, the effect of naltrexone was only observed when SIB was most frequent (unstructured settings) . . . and the effect was most apparent in reducing the most frequent behavior. This is consistent with other reports that naltrexone was more effective with severe patients." Their findings indicate, they say, that naltrexone is more effective in reducing purely biologically induced self-injury than in decreasing SIB caused by frustration or other environmental factors.

The researchers also found that all dosage levels of naltrexone increased the subject's ability on tasks measuring learning and short-term memory.

No improvement seen in Rett's

Unlike autistic individuals, girls with Rett syndrome do not appear to benefit from naltrexone therapy, according to a new study presented to the Child Neurology Society by Alan Percy and colleagues.

Rett syndrome is a progressive neurological disorder primarily affecting girls; in its early stages, the disorder can strongly resemble autism.

Percy et al. administered naltrexone to 25 girls with Rett syndrome (21 of whom completed the study), and "failed to demonstrate benefit" in any of the subjects during two four-month treatment periods.

NALTREXONE STUDIES, 1987-1991

Date/Researcher(s)	No. of subjects	Dosage	Positive Effects	Negative Effects
1987 Campbell et al.	8 autistic children	.5 to 2.0 mg/kg	Better eye contact & social behavior; less aggression & stereotypy	Only mild & transient effects
1987 Herman/Hammock	5 autistic children	.5 to 2.0 mg/kg	Less self-stimulatory behav., more eye contact, more positive response to hugging	
1987 Herman/Hammock	3 self-injurious children	.5 to 2.0 mg/kg	Significantly reduced self-injury	
1987 Bernstein et al.	2 studies, 1 subject ea.	.5 and 1.0 mg/kg	Reduced self-injury	
1987 Szymanski et al.	2 profoundly retarded subjects	50 and 100 mg	No positive effects seen	
1988 Leboyer et al.	2 autistic subjects	1.0 to 2.0 mg/kg	Reduced self-injury, hyperactivity, stereotypy; more social behavior	
1989 Campbell et al.	10 autistic children (ages 3-6)	.5 to 2 mg/kg	Less withdrawal, stereotypies at 2 mg; more verbal at .5 mg. Slightly reduced aggression, SIB	Mild sedation
1989 Herman et al.	3 subjects from orig. study (see above)	.5 to 2 mg/kg	At .5 mg, significant decrease in facial/head banging. Less effect at higher dose	
1989 Lienemann/Walker	1 27-yr.-old autistic woman	50 mg	Significantly reduced self-injury	
1990 Leboyer et al.	4 autistic children 4-19 years	.5, 1, and 2 mg/kg	Better socialization, eye contact, attention at 1 mg. Less SIB at .5	
1990 Walters et al.	1 autistic 14-year-old	1 mg/kg	Significantly reduced self-injury	
1990 Kars et al.	6 retarded children/adults	1 mg/kg	Reduced self-injury in two subjects	
1990 Sandman et al.	4 retarded adults	25, 50, and 100 mg	Decreased self-injury in all cases; greatest improvement seen in most self-injurious subject	
1990 Campbell et al.	18 autistic children (ages 3-7)	.5 mg/kg to 1 mg/kg	Slight decreases in withdrawal, increased verbalization & communicative speech	More aggression (2); more stereotypy (2); more side effects on placebo than drug
1991 Panksepp/Lensing	4 autistic children	.4-8 mg/kg; some doses given every 3rd day	Reduced SIB, tantrums, aggression, negativism; increased interaction, hugging, eye contact, vocalizations, relaxation, toy play	At higher doses, panic symptoms, relapses, and/or excessive clinginess; no side effects at lower doses
1991 Taylor et al.	1 autistic 20-year-old	.5, 1, 2 mg/kg on Mon/Wed each week	Reduced self-injury, improved learning & memory	
1991 Herman	13 autistic children (ages 3-13)	.5, 1, 1.5, or 2 mg/kg 1 dose per week	Less hyperactive, more social, fewer inapprop. noises, better attention spans, more interaction	

References available upon request. Send SASE and ask for "Vol. 1/1992 naltrexone references."