

**USE OF BENZODIAZEPINES IN TREATMENT OF DEPRESSION**  
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Benzodiazepines have been found to be ineffective in the treatment of core symptoms of depression. However, triazolobenzodiazepines, which include alprazolam and adinazolam with the structure and metabolic pathways different from classical benzodiazepines, have demonstrated some antidepressant effects. In a 6 week randomized double-blind study, adinazolam mesylate (Deracyn, Upjohn) was compared with placebo in 32 outpatients with diagnosis of major depression with or without melancholia. Subjects underwent 1 week of a single blind placebo treatment period, followed by 6 weeks of a double blind placebo controlled study period. Efficacy as measured by (HAM-D) and (SCL- 90) was evaluated at week 1, 2, 4 and 6. Both placebo and adinazolam groups improved over the period of time. Adinazolam was superior to placebo on clinician rated (HAM-D) and patients rated (SCL- 90) measures of efficacy, but the difference was not found to be statistically significant. Anxiety factor in depression showed no trend for superiority of adinazolam over placebo. This lack of anxiolytic activity was remarkable for a drug of benzodiazepine origin. In our study, anxious depressed patients showed less improvement than did other patient groups. One of the patients had acute manic episode during the active treatment. Drowsiness and headache were the most common side effects reported with active medication.

**LEVELS OF TYROSINE HYDROXYLASE PROTEIN ARE ELEVATED IN LOCUS COERULEUS OF SUICIDE VICTIMS.**

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Alterations in brain norepinephrine (NE) have been implicated in depression, bipolar disorders, and schizophrenia. The locus coeruleus (LC) is the principal source of brain NE, and the biosynthesis of NE is controlled by tyrosine hydroxylase (TH), the expression of which can be influenced by environmental factors such as stress and by psychoactive drugs. In the present study, quantitative blot immunolabeling techniques were used to determine if the levels of TH in LC of suicide victims were altered. In tissue sections taken at a single rostral-caudal level of LC from 9 pairs of antidepressant-free suicide victims and age-matched, sudden death controls, there was a greater amount of TH protein in the sections from suicide victims in each of the 9 matched pairs ( $\bar{x}$  = 136% of control; range, 108% to 172%). By contrast, there were no differences in the levels of neuron-specific enolase (range, 90% to 114%) or in the numbers of neuromelanin-containing cells in adjacent sections. Similar results were obtained when tissue punches of LC from the sections were analyzed. Additional studies analyzing punches taken at several rostral-caudal levels of LC from control subjects and suicide victims, for whom psychological autopsy data are available, are currently underway.

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**Diet and Gender Moderate Clozapine-Related Weight Gain.**  
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This study examined patients with schizophrenia in two state hospitals treated with clozapine, with particular attention to factors that may affect weight gain. A retrospective chart review was performed for 40 subjects, all of whom had been treated for at least 6 months. Patients included 26 males and 14 females, 34 caucasians and 6 blacks, with an average age of 37.5 years. Twenty-nine patients were overweight prior to initiation of treatment with clozapine, and ten patients were placed on diets prior to clozapine treatment. Dosages at 1 and 6 month intervals were recorded, with no evident group differences related to gender or diet status. Results indicate a significant ( $p = .001$ ) treatment x diet interaction, with nondieters gaining more weight. For the 30 nondieters, weight was higher by 7.2 pounds, with women particularly affected, and for the 10 dieters, weight was 10.0 pounds lower, with men showing greater weight loss. There was also a significant ( $p = .01$ ) treatment x sex interaction, with females gaining more weight. Nondieting men gained an average of 4.5 pounds, nondieting women gained 13.3 pounds, dieting men lost an average of 15.6 pounds, and dieting women gained .8 pounds. Patients overweight prior to clozapine therapy were no more likely to gain significant amounts of weight than were patients of normal weight. No relationship was found between dosage and weight gain. We conclude that previous reports of weight gain with clozapine treatment have revealed inconsistent results based on varied gender composition of the subject pool. It also appears that dietary management is an important component of comprehensive treatment for patients taking clozapine.

**SUCCESSFUL TREATMENT OF BIZARRE RITUALISTIC BEHAVIOR WITH SEROTONERGIC MEDICATIONS.**

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The study is to demonstrate the effectiveness of serotonergic medications on atypical Obsessive Compulsive (OCD) cases. The Global Assessment of Functional Scale (GAF) was used to evaluate the patients' mental condition. For many years 3 patients with bizarre ritualistic behavior received various kinds of diagnoses and treatments without success. The 1st patient had unusual slowness of initiation & movement and was kept alive by gastrostomy. The 2nd patient was very ambivalent and could not make decision and had 7 year unsuccessful treatment history. The 3rd patient had Tourette's syndrome. Her ritualistic behavior interfered her daily living. All 3 patients showed much improvement after 2 months of serotonergic medication treatment. Their GAF were changed from 30 to 60. They would be best classified as atypical OCD cases, i.e. obsessive compulsive spectrum disorders (OCS). Most biological models of OCD center around the role of serotonin in pathophysiology. This model stems primarily from the finding that serotonin reuptake inhibitors are highly effective in the treatment of OCD & OCS.