

EFFECT OF CIGARETTE SMOKING IN MALE PATIENTS WITH SCHIZOPHRENIA TREATED WITH OLANZAPINE

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Introduction: Patients with schizophrenia have elevated rates of cigarette smoking, and difficulty in smoking cessation. Cigarette smoking may reduce plasma levels of antipsychotics up to 50%.

Objective: To investigate effects of cigarette smoking in olanzapine treatment of schizophrenia.

Methods: 91 patients with schizophrenia, aged 18-51, were divided into four groups. Control group (25 patients) and experimental groups: E1, 1-20 cigarettes/24h (23 patients), E2, 21-40 cigarettes/24h (22 patients) and E3, 40+ cigarettes/24h (21 patients). Patients were observed for one year period. Patients were assessed by Positive and Negative Symptom Schedule Scale (PANSS) at baseline and after one year.

Results: No significant differences were found for PANSS score at baseline ($p=0.535$). PANSS reduction at study endpoint was significant in all groups ($p<0.001$). PANSS reduction was highest in non-smokers group 65.5%, and lowest in group of heavy smokers (40+ cigarettes/24h) 39.2%. There is a statistically significant difference in PANSS reduction between non-smokers group and all smokers groups ($p<0.001$). There is a statistically significant difference in PANSS reduction between E1 and E2, and E1 and E3 group ($p<0.001$), and no difference between E2 and E3 group ($p=0.414$). There is a statistically significant difference in olanzapine average daily dose after one year between non-smokers group and all smokers groups ($p<0.001$).

Conclusions: Olanzapine therapy is most efficient in non-smokers group. Smoking more than 20 cigarettes per day significantly reduces effects of olanzapine therapy. Average daily dose of olanzapine is significantly lower in non-smokers group than in all three groups of smokers.