

DETERMINATION OF WHETHER OBESITY IS A RISK FACTOR FOR DEVELOPING HYPERGLYCEMIA AMONG PATIENTS WHO TOOK OLANZAPINE

INTRODUCTION

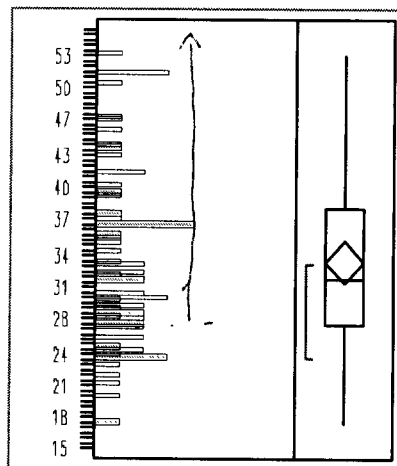
Olanzapine therapy was associated with weight gain in some patients, and treatment emergent hyperglycemia in a small percentage of patients. It is not known whether weight gain and/or obesity increases the risk of developing hyperglycemia. Based on post-marketing spontaneous reports, only 10.5 % of those who reported hyperglycemia also reported weight gain. The purpose of this is to determine the role of obesity as a risk factor for treatment-emergent hyperglycemia among olanzapine patients. The analysis was based on reports collected in Eli Lilly's Clintrace database as of Feb 28, 1999.

METHODOLOGY

Reports of events encoded with one or more of the following COSTART terms were retrieved from Clintrace for review: diabetic ketosis, diabetes mellitus, diabetic coma or hyperglycemia. A total of 237 reports met the search criteria.

DISTRIBUTION OF BODY MASS INDEX AMONG OLANZAPINE PATIENTS WHO REPORTED HYPERGLYCEMIA

66 of the 237 reports contain for weight and height to permit calculation of body mass index (BMI). The distribution of these BMI is indicated as below:



Quantiles		
maximum	100.0%	52.760
quartile	75.0%	38.112
median	50.0%	<u>31.390</u>
quartile	25.0%	26.960
	10.0%	23.788
	2.5%	19.302
	0.5%	17.520
minimum	0.0%	17.520

Moments	
Mean BMI	<u>33.09833</u>
Std Dev	8.53044
Std Error Mean	1.05002
Upper 95% Mean	35.19538
Lower 95% Mean	31.00129
N	66

Test Mean=value
(null hypothesis: the mean of BMI of hyperglycemic patients = 27.8)

Hypothesized Value	27.8
Actual Estimate	33.0983
	t Test
Test Statistic	5.0459
Prob > t	<u><.0001</u>
Prob > t	<.0001
Prob < t	1.0000

The mean and median BMI was 33.1 and 31.4, respectively. Obesity is defined as persons with BMI above 27.8 for males and 27.3 for females.

CONCLUSION

The BMIs of 70% of olanzapine patients (48 of 69 patients) who reported hyperglycemia were above 27.8 and are considered obese. The mean body mass index of those olanzapine patients reported to have hyperglycemia was significantly higher than 27.8 ($p < 0.0001$).

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