

## Antipsychotic-Induced Diabetes Mellitus

Zineb Ait Si Ali, M'Ballou Camara, Sana Rafi, Ghizlane El Mghari, Nawal El Ansari.

Department of Endocrinology, Diabetes, Metabolic diseases and Nutrition

Mohammed VI university hospital of Marrakesh

Faculty of medicine and pharmacy of Marrakesh, Cadi Ayyad University, Marrakesh, Morocco

### Abstract

#### Background

Antipsychotic drugs have drastically changed the management and prognosis of psychotic patients. Several metabolic consequences of antipsychotic use have been described within the literature. The prevalence of diabetes is 10% among people taking antipsychotics, which is 2–3-fold higher than the general population.

#### Patients & methods:

our study was retrospective, including patients hospitalized in the psychiatry department of the Mohamed VI university hospital of Marrakesh, having diabetes mellitus secondary to antipsychotic drugs. the aim of our work is to discuss the pathophysiology of this entity, its diagnostic modalities as well as its therapeutic management.

#### Results:

Our study enrolled 37 patients, hospitalized in the psychiatry department, who had diabetes mellitus secondary to antipsychotic drugs. The mean age was 51 years, with extremes ranging from 25 to 80 years, with a male predominance of 75.86%. 8 patients (21.62%) were on metformin, 14 patients (37.83%) were on oral biotherapy including metformin, while 15

patients (40.54%) were on metformin and insulin therapy. All our patients had sedentary lifestyle, 11 patients (29.72%) had overweight and 26 were obese (70.27%), 8 were chronic smokers, 7 were chronic alcoholics and 6 among them were drug users. The vast majority of patients had a normal workup except abnormal lipid profile in 24 patients (64.86%).

#### Discussion & Conclusion:

Antipsychotic drugs are widely prescribed to control schizophrenia and bipolar disorders, as well as other mental disorders. Several metabolic side-effects of antipsychotic use have been described within the literature, including weight gain, hyperglycemia, and dyslipidemia.

While the exact mechanisms of antipsychotic-induced diabetes mellitus are unknown, there are a variety of proposed mechanisms; insulin resistance and direct damage of  $\beta$ -cells leading to dysfunction and apoptosis of  $\beta$ -cells. Appropriate monitoring for metabolic disorders in patients treated with antipsychotics is recommended to the early recognition and treatment of antipsychotic-induced diabetes mellitus. The management of antipsychotic induced diabetes mellitus consists on lifestyle modification, metformin as the preferred first-line therapy, other antidiabetic treatment can be used if needed: sulfonylureas, GLP-1 analogs, insulin therapy.