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Educational Consultants

David A Riley EdD, Chairman, PharmaCE Panel, School of Pharmacy, West Virginia University, Morgantown, WV; *Michael C Shannon PhD,* Vice-Chairman, PharmaCE Panel, Nicholasville, KY; *Ginger G Scott PhD,* School of Pharmacy, West Virginia University, Morgantown, WV; *Robert B Supernaw PharmD,* School of Pharmacy, Wingate University, Wingate, NC.

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Atypical Antipsychotics and Diabetes Recommendations

(see page 8)

Goal

To present historical and current information pertaining to the relationship between diabetes/hyperglycemia and antipsychotics and discuss suggested monitoring guidelines for all patients prescribed AAPs.

Objectives

After reviewing this article, the reader should be able to:

1. identify potential reasons for increased rates of diabetes in patients with schizophrenia;
2. identify the AAPs with the most diabetogenic potential;
3. identify the prospective implications of antipsychotic-induced diabetes in patients with schizophrenia;
4. identify suggested monitoring parameters for patients initiated on a AAP.

Test Questions

1. The increased risk of glucose intolerance in patients with schizophrenia is *least* likely due to:
(a) antipsychotic use.
(b) increased visceral fat.
(c) active lifestyle.
(d) family history of diabetes.
(e) poor dietary habits.

2. Which of the following statements is *false*?
(a) Patients with schizophrenia are at increased risk for metabolic syndrome.
(b) Patients with schizophrenia have low rates of nicotine dependence.
(c) Patients with schizophrenia may have cognitive impairments as a part of their illness.
(d) Patients with schizophrenia have an increased rate of diabetes.
(e) Patients with schizophrenia have a higher mortality rate than the general population.

3. New-onset diabetes has been reported with all the AAPs *except*:
(a) olanzapine.
(b) risperidone.
(c) clozapine.
(d) aripiprazole.
(e) quetiapine.

4. Which of the following statements about DKA and AAPs is *false*?
(a) Excessive weight gain is a strong predictor for AAP-induced DKA.
(b) DKA generally occurs within the first 6 months of initiating the AAP.
(c) Patients without a history of diabetes are more likely to develop DKA.
(d) Several deaths have occurred from DKA.
(e) AAP-induced DKA is characterized by hyperglycemia, hyperketonemia, and metabolic acidosis.

5. Which is the *most* correct order for diabetogenic potential?
(a) quetiapine > clozapine > olanzapine = risperidone > ziprasidone = aripiprazole
(b) olanzapine = clozapine > risperidone = quetiapine > aripiprazole = ziprasidone
(c) aripiprazole = ziprasidone > risperidone > quetiapine > olanzapine = clozapine
(d) quetiapine > clozapine = olanzapine > risperidone > ziprasidone = aripiprazole
(e) risperidone = quetiapine > olanzapine = clozapine > aripiprazole = ziprasidone

6. Diabetes in patients with schizophrenia can increase the risk for all of the following *except*:
(a) peripheral neuropathy.
(b) renal failure.
(c) stroke.
(d) myocardial infarction.
(e) asthma.

7. Which of the following statements is *true*?
(a) New-onset diabetes in patients with schizophrenia is not apt to affect medication adherence.
(b) Implementing an exercise regimen is likely an effective intervention for AAP-induced diabetes.
(c) Patients with schizophrenia, on average, have fewer medical visits than patients in the general population.
(d) Patients with comorbid schizophrenia and diabetes are not at increased risk of cardiovascular complications.
(e) Weight gain associated with AAPs does not appear to increase mortality rates.

8. In a clinical setting, the easiest diagnostic tool for diabetes is:
(a) FBG.
(b) weight.
(c) HbA_{1c}.

Answer sheet appears on facing page.

(d) OGTT.
(e) waist circumference.

9. All of the following are necessary to obtain before any AAP is initiated *except*:
(a) blood pressure.
(b) FBG.
(c) fasting lipid profile.
(d) family medical history.
(e) pulmonary function test.

10. In patients prescribed an AAP, it is suggested that waist circumference should be monitored at:
(a) every visit.
(b) baseline and then quarterly.
(c) baseline and then annually.
(d) baseline and then every 5 years.
(e) baseline and only if significant weight gain is observed.

11. Which of the following statements is *true*?
(a) Children being prescribed AAPs do not require special monitoring.
(b) It is not necessary to address weight gain associated with AAPs until it exceeds 10% from the baseline value.
(c) Screening for diabetes should occur every 3 years in patients whose BMI is >18, regardless of their age.
(d) Patients with several cardiovascular risk factors may need to be monitored more frequently than those with no or few risk factors.
(e) The new monitoring guidelines for AAPs apply only to patients whose BMI is >25.

12. A 34-year-old obese male (BMI = 31) is diagnosed with schizophrenia. He is brought into the mental health clinic today by his brother because of a noticeable increase in auditory hallucinations. The patient had been receiving olanzapine 20 mg for the past 3 months, but had not been taking the medication for the past 4 days because he was upset that it had made him gain 25 pounds. His FBG level one month ago was 118 mg/dL; today it is 135 mg/dL. Before he had stopped taking the olanzapine, the hallucinations were better controlled, but still present. What is the best treatment option for this patient?
(a) Restart olanzapine, but at a lower dose to reduce the diabetogenic potential.
(b) Do not restart any antipsychotic.
(c) Restart olanzapine, but increase the dose for better symptom control.
(d) Discontinue olanzapine and start aripiprazole.
(e) Continue olanzapine and start ziprasidone.

13. A 12-year-old male is receiving an APP. The joint panel from ADA, APA, and other organizations did *not* recommend monitoring the:
(a) BMI.
(b) FBG.
(c) height.
(d) weight.
(e) None of the above is true.

14. A 50-year-old female has no family history of diabetes. Her BMI is 26, she exercises twice a week, usually eats a healthy diet, and currently has no known illnesses. Based on ADA guidelines, the woman should be screened for diabetes:
(a) every 6 months.
(b) every year.
(c) every other year.
(d) every 3 years.
(e) every 5 years.

15. A 42-year-old male is taking an APP. His blood pressure is 160/100 mm Hg and FBG is 106 mg/dL. Minimally, how frequently should his FBG be monitored?
(a) at baseline, then every 4 weeks for the next 12 weeks
(b) at baseline, at 12 weeks, then quarterly
(c) at baseline, at 12 weeks, then semiannually
(d) at baseline, at 12 weeks, then annually
(e) at baseline, then quarterly, then annually