

Metabolic challenges in Schizophrenia and with antipsychotic drug therapy

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Schizophrenia is a psychiatric disorder requiring constant vigilance and lifelong intervention with psycho therapeutic counseling and administration of Antipsychotic drugs. Metabolic aberrations are documented to occur more frequently in subjects with Schizophrenia (SCH) prior to treatment and the prevalence of these metabolic alterations is significantly raised following administration of Antipsychotic drugs especially the newer ones. Adiposity in SCH prior to drug therapy is significantly increased in comparison to age matched healthy subjects (N) as documented by several indices. Body Mass Index, kg/m² (26.7 for SCH vs 22.8 for N, p<0.003); Waist/Hip Ratio (0.99 for SCH vs 0.86 for N, p<0.005); Total Body Fat, mm² (34681 in SCH vs 27692 in N, p<0.01) and Intra-abdominal fat, mm² (13232 in SCH vs 3880 in N, p<0.005). Sequelae of obesity involve almost every organ and system in the body and contribute to increase both morbidity and mortality in SCH. Thus, the prevalence of other disorders constituting Metabolic syndrome e.g. Hypertension, PreDiabetes or Type 2 Diabetes and, Dyslipidemia, rises markedly and presence of these disorders more than double the relative risks of mortality in comparison in SCH to general population. The mortality risk is likely to be increased further with recent documentation of rising prevalence of cancer amongst subjects with obesity and diabetes. In several subjects with SCH, the initial manifestation of Diabetes is Diabetic KetoAcidosis or Hyperglycemic Hyperosmolar State resulting in hospitalization with obtundation and coma. Moreover, the severity of these metabolic changes is more pronounced at diagnosis in subjects with SCH as compared to non SCH subjects due to lack of recognition of symptoms and/ or neglect on part of the subjects with SCH, leading to a far greater mortality. Moreover, increased frequency of smoking in subjects with SCH induces even greater risks of morbidity and mortality via rise in infectious and respiratory disorders. Finally, some of the newer antipsychotic drugs especially Olanzapine and Quetiapine are well documented to cause a rise in prevalence of all disorders constituting Metabolic Syndrome. Therefore, a consensus development conference was conducted by several organizations with formulation of recommendations for management of subjects with Schizophrenia. They include Metabolic risk considerations prior to and at initiation of atypical antipsychotics; 1) Patient, family, and caregiver education, 2) Baseline screening, 3) Regular frequent monitoring at 3-6 months' interval and 4) Referral to specialized services, when appropriate.

Biography

Udaya M. Kabadi, M.D. is a graduate of Seth G.S. Medical College, University of Bombay in Bombay, India. He completed his internal medicine residency at KEM Hospital in Bombay and also a medicine residency at Jewish Memorial Hospital and Beth Israel Medical Center in New York, New York. He also completed an endocrinology fellowship at VA Medical Center and Beth Israel Medical Center in New York, New York. Dr. Kabadi is board certified in Internal Medicine, endocrinology and metabolism and geriatric medicine by the American Board of Internal Medicine. He is a fellow of the Royal College of Physicians of Canada, the American College of Physicians and the American College of Endocrinology. He is a member of Editorial Boards of several medical journals.

Dr. Kabadi is currently adjunct professor of medicine at the University of Iowa College of Medicine, Iowa City, Iowa and Des Moines University, Des Moines, Iowa. Dr. Kabadi has over 160 publications in peer reviewed journals. He has presentations to his credit, at regional, national, and international arenas. He has been involved for several years in research in the area of Carbohydrate Metabolism and Diabetes, Thyroid Disorders and Osteoporosis.

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