

Second-generation antipsychotic drugs (eg, olanzapine, quetiapine, risperidone, aripiprazole, and ziprasidone) have a reduced incidence of extrapyramidal side effects compared with first-generation neuroleptics, leading to increased use in psychiatric practice. However, some second-generation antipsychotic drugs can increase cardiometabolic risk by increasing risk for weight gain, dyslipidemia, and insulin resistance. Growing evidence, including baseline metabolic data from the CATIE study, indicates that patients with schizophrenia have an increased prevalence of metabolic syndrome (obesity, hypertension, hyperglycemia, dyslipidemia, and hyperglycemia). In CATIE Phase 1 and 2, treatment with different antipsychotic medications is associated with different effects on weight, plasma lipids and risk of hyperglycemia, ranging from clinically significant increases to decreases in metabolic risk. While mortality related to cardiovascular disease is elevated in this patient population, cardiovascular disease risk is under-monitored and under-treated. Current public health efforts aim to increase attention to this at-risk population. Long-term treatment strategies in persons with mental illness should aim to address psychiatric illness as well as key medical comorbidities.

SAT4.03

Toward the reintegration of psychiatry and medicine in patients with mental illness

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Treatment goals in schizophrenia and bipolar disorder are no longer simply the reduction of psychosis and manic or depressive episodes. Today's treatment goals encompass a broader improvement of quality of life and, as much as possible, the return of patients to premorbid levels of functioning. To achieve these wider-reaching goals, patient care must simultaneously address not only patients' psychiatric illness but also their medical problems. In addition to reducing mortality, there are good psychiatric reasons for addressing the physical well-being of patients: the presence of a comorbid physical illness worsens the prognosis of the mental disorder and vice versa. General medical monitoring should form as much a part of the routine management of patients with long-term mental illness as should psychiatric reviews, and any barriers between diagnosis and treatment in these patients should be examined. The care team needs to be expanded beyond the core psychiatric team, and patient access to primary medical care needs to be improved to ensure parity of medical treatment with the general population. As patient function improves, patients and their families can become more involved in self-management and feel empowered to affect their own outcomes.

SAT5 - Satellite symposium: DOPAMINE TRANSPORTER SPECT IN THE DIFFERENTIAL DIAGNOSIS OF DEMENTIA - A NEW CLINICAL TOOL

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SAT5.01

Dementia with Lewy bodies: A comparison of clinical diagnosis, DaTSCAN imaging and neuropathological diagnosis

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Background: Dementia with Lewy bodies (DLB) is a common form of dementia. The presence of Alzheimer's disease (AD) pathology modifies the clinical features of DLB, making it harder to distinguish DLB from AD clinically during life. Our aim was to determine, in a series of patients with dementia in whom autopsy confirmation of diagnosis is available, whether functional imaging of the nigrostriatal pathway improves the accuracy of diagnosis compared to diagnosis by means of clinical criteria alone.

Methods: A SPECT scan was carried out with a dopaminergic pre-synaptic ligand [¹²³I]-2beta-carbomethoxy-3beta-(4-iodophenyl)-N-(3-fluoropropyl) nortropane (FP-CIT) on a group of patients with a clinical diagnosis of DLB or other dementia. An abnormal scan was defined as one in which right and left posterior putamen binding, measured semi-quantitatively, was more than 2 standard deviations below the mean of the controls.

Results: Over a ten year period it has been possible to collect twenty patients who have been followed from the time of first assessment and time of scan through to death and subsequent detailed neuropathological autopsy. Eight patients fulfilled neuropathological diagnostic criteria for DLB. Nine patients had AD, mostly with co-existing cerebrovascular disease. Three patients had other diagnoses. The sensitivity of the FP-CIT scan for the diagnosis.

Conclusions: FP-CIT SPET scans substantially enhanced the accuracy of diagnosis of DLB by comparison with clinical criteria alone.

SAT5.02

Results of a multi-centre study of DaTSCAN in dementia with Lewy bodies

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Clinically based diagnostic criteria for DLB have limited accuracy. The availability of a biomarker to assist with diagnosis would be a major advance. Severe nigro-striatal degeneration and dopamine loss occurs in DLB but not in most other dementia subtypes offering a potential system for a biological marker. In the PDT-301 study, 326 patients with dementia with clinical diagnoses of probable or possible DLB, or non-DLB dementia established by a Consensus panel, had a FP-CIT SPECT brain scan labelling the dopamine transporter (DAT) reuptake site in the striatum. Three readers, blinded to clinical diagnosis, classified the images as normal or abnormal by visual inspection. This study which was conducted across 40 European sites, confirms the high correlation between abnormal (low uptake) DAT activity measured using FP-CIT SPECT and a clinical diagnosis of probable DLB. The diagnostic accuracy is sufficiently high for this to be clinically useful in distinguishing DLB from AD.

SAT5.03

The impact of DaTscan can have on dementia patients: Case studies

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Although good epidemiological data do not yet exist, Dementia with Lewy bodies (DLB) is increasingly recognized as one of the most common causes of dementia after Alzheimer's disease (AD). The identification of DLB has important implications in terms of prognosis and patient management. These patients frequently develop motor,

psychiatric, and sleep-related disturbances in addition to the dementia syndrome, and information and re-assuring of patients and caregivers are important. In addition, drug treatment of patients with DLB is different from that of AD patients. DLB patients may respond better to cholinergic and dopaminergic agents, but are more likely to develop severe side-effects when treated with anti-psychotic agents, including the atypical ones.

However, diagnosing DLB may be difficult. Several studies have demonstrated a low diagnostic sensitivity compared to AD when using international consensus criteria for a clinical diagnosis of DLB. Thus diagnostic markers are needed to improve diagnostic accuracy. Although emerging data indicate that neuro-imaging techniques such as structural MRI and perfusion SPECT may differentiate AD and DLB at group level, there is too much overlap for these techniques to be useful in the diagnosis of individual patients. Accordingly, the finding that Dat scan can reliably distinguish patients with DLB from those with AD, even DLB patients without parkinsonism, can improve patient management. The most important situation is a patient fulfilling DLB criteria but without parkinsonism, where Dat scan ascertain involvement of the nigrostriatal system typical for DLB. Another potentially important situation is a patient with dementia and parkinsonism and psychosis treated with antipsychotic, where it is unclear whether parkinsonism is secondary to the antipsychotic drug treatment or part of the dementia syndrome. Cases illustrating these clinical dilemmas will be presented and discussed.

**SAT6 - Satellite symposium:
MENTAL AND PHYSICAL HEALTH ARE
INTERCONNECTED: THE NEED FOR
INTEGRATED HEALTHCARE**
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SAT6.01

Schizophrenia and overweight/obesity: Pathophysiology and medical consequences

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Overweight/obesity is a growing concern throughout the general population. The prevalence of overweight and obesity in schizophrenia is high, compounding the burden of an already devastating illness. This is making overweight/obesity an important consideration if the physical health of patients is to be improved. Ultimately, overweight/obesity results from an imbalance between food intake and energy expenditure over several years. However, the pathophysiology of overweight/obesity is complex and involves interactions between environmental, behavioural and genetic factors. There is compelling evidence that patients with schizophrenia are more prone to weight increase than the general population. Although a number of social factors contribute to the increased risk of overweight/obesity and metabolic disturbances in patients with psychiatric disorders, there is also evidence that genetic factors may play a role. Additionally, many psychiatric medications are known to be associated with weight gain. It is thought that weight gain may be related to neurotransmitter-receptor affinity, which can have multiple effects on energy homeostasis. For example, histamine H1 receptor affinity has been

shown to predict short-term weight gain with both typical and atypical antipsychotics.

Obesity, especially abdominal obesity, is associated with a number of adverse health consequences. These include an increased risk of glucose intolerance, insulin resistance, Type 2 diabetes, dyslipidaemia, hypertension and cardiovascular disease. In addition, the presence of metabolic syndrome, a cluster of metabolic disturbances, significantly increases the risk of cardiovascular morbidity and mortality. It can therefore be seen that there is an urgent need to start identifying schizophrenia patients who are at risk to help improve long-term health outcomes.

SAT6.02

Impact of antipsychotic treatment on physical health

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Metabolic abnormalities have consistently been identified as a part of schizophrenic illness, but with the introduction of second-generation antipsychotics and their possible association with metabolic abnormalities, the interest in this topic has been renewed. Many studies have now provided convincing evidence for a high risk of obesity, diabetes and other glucose abnormalities, the metabolic syndrome, and mortality due to elevated cardiovascular risk in patients with schizophrenia. These metabolic abnormalities are of major clinical concern, not only because of their direct, somatic effects on morbidity and mortality, but also because of their association with psychiatric outcomes, such as a higher prevalence of psychotic and depressive symptoms, a lower functional outcome, a worse perceived physical health and lower adherence to medication. The reasons that underlie the high prevalence of these metabolic abnormalities are much debated, especially when considering the possible role of second-generation, 'atypical' antipsychotics in the occurrence of these abnormalities. Many studies have suggested a role of (certain) atypical antipsychotics in the occurrence of metabolic abnormalities; case reports, cross-sectional or retrospective studies and prospective studies. Different consensus groups have proposed guidelines for screening, monitoring and management of metabolic abnormalities for people treated with antipsychotic agents.

SAT6.03

Psychosocial consequences of physical health impairment in schizophrenia

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As well as the obvious medical consequences associated with physical health problems in individuals with schizophrenia, physical health problems lead to a number of psychosocial consequences - further contributing to the existing burden of schizophrenia itself. Weight gain is one that may have repercussions on both psychosocial and economic parameters. Weight gain can seriously impair quality of life through decreased functioning, social stigmatization, discrimination, and potential financial consequences. Obesity and being overweight appear to have the same impact on the self-esteem and well-being in people with schizophrenia as those in the general population, and it has been shown that patients who experienced recent weight gain had lower psychosocial adjustment and self-esteem compared with patients without weight change. However, patients with schizophrenia may be less capable of managing their weight via exercise and dietary interventions compared with the general population, and