



*Non-HDL cholesterol, weight, and triglycerides declined after a switch to aripiprazole (Stroup et al., p. 947)*

## Clinical Guidance: Metabolic Effects of Switching to Aripiprazole in Schizophrenia

Patients with a body mass index of 27 or higher and a level of non-HDL cholesterol of 130 mg/dl or higher who were taking a stable dosage of olanzapine, quetiapine, or risperidone were randomly assigned to stay on the current medication or switch to aripiprazole for 24 weeks by Stroup et al. (p. 947). All participants were enrolled in a diet and exercise program. Non-HDL cholesterol decreased more for patients switched to aripiprazole (figure). Switching to aripiprazole was associated with larger reductions in weight and a net reduction of serum triglycerides. There was no difference in the rate of treatment failure, but nearly twice as many patients discontinued the new aripiprazole regimen before 24 weeks. In an editorial (p. 882), Weiden calls for similar research on switching medications to improve efficacy.

## Real-Time Imaging Shows Illness Mechanisms

Imaging studies of brain functioning during cognitive testing exposed key aberrations in the cingulate gyrus of patients with three psychiatric disorders. Etkin and Schatzberg (CME, p. 968) observed processing deficits in the ventral anterior cingulate and amygdala of patients with major depression and/or generalized anxiety disorder, but those with depression only had compensatory prefrontal activity. The twin study by Shin et al. (CME, p. 979) suggests genetic vulnerability to posttraumatic stress disorder (PTSD). Not only did combat veterans with PTSD show greater activation of the dorsal anterior cingulate than combat veterans without PTSD, but so did their monozygotic co-twins without combat exposure. The editorial by Pine and Freedman (p. 885) describes how animal models based on the functions of these neural circuits during fear conditioning could facilitate development of new treatments for human mental disorders.

## Clinical Guidance: Treatment of Schizophrenia With Lurasidone

Lurasidone is a recently approved antipsychotic drug for schizophrenia, with daily doses up to 80 mg. Doses above that level were associated with increased levels of akathisia in the 6-week study by Silva et al. (p. 957). At recommended doses, lurasidone is efficacious for both positive and negative symptoms with no effect on metabolic parameters. Olanzapine was associated with greater significant improvement on some measures but also had increased metabolic effects.

## Prevalence of Autism Spectrum Disorders

The prevalence of autism spectrum disorders was 2.6% in South Korean children ages 7–12. Kim et al. (p. 904) attribute the high rate to rigorous screening of both a population sample and children known to have special needs. Many of the diagnosed children were attending regular schools. The editorial by Charman (p. 873) identifies several reasons for variation in autism prevalence among studies.

## Gene-Trait Connections in Schizophrenia

Genes affecting glutamate neurotransmission featured prominently in associations between 94 genes and 12 inherited physiological or cognitive characteristics of schizophrenia. Greenwood et al. (p. 930) examined 1,536 single-nucleotide polymorphisms (SNPs) in multiple members of 130 families of people with schizophrenia. Each subject also completed tests of attention, memory, abstraction, response inhibition, and emotion recognition. Of 16,620 possible SNP-trait associations, 47 showed strong significance. In his editorial, Goldman (p. 879) notes that genetic findings on schizophrenia appear to converge on the dysfunction of brain circuits.

## Clinical Guidance: Depression, Smoking, and Heart Disease

Depression was associated with increased inflammation as measured by elevated levels of interleukin-6 and high-sensitivity C-reactive protein in patients with coronary heart disease from the Heart and Soul Study, report Duivis et al. (CME, p. 913). The effect was accounted for by the increased body mass index and cigarette smoking associated with depression. Schroeder points out in an editorial (p. 876) that effective treatments for smoking cessation do not interfere with treatment of depression or cause suicide. Treatment of both smoking and depression with bupropion and referral to a “quitline” are possible strategies.