

Immunosuppressive therapy in adolescent liver transplant recipients

Studies have indicated that nonadherence to post-transplantation medical regimens is more common in adolescents than adults; however, there are limited data on nonadherence to treatment specifically in adolescent liver transplant recipients.

Berquist *et al.* have carried out a retrospective study of 97 adolescent liver transplant recipients who had survived for at least 1 year after transplantation, to determine the prevalence of nonadherence to treatment, to identify the demographic and medical-condition-related characteristics associated with nonadherence, and to evaluate the effects of nonadherence on morbidity and mortality. Patients were classified as nonadherent if they had at least one chart-documented report of a failure to take immunosuppressive medication.

More than one-third of the participants were nonadherent, and this behavior was shown to be associated with higher morbidity (i.e. late acute rejection and need for retransplantation) and mortality compared with adherent behavior. Interestingly, nonadherent patients were more likely to be female, from a single-parent household, of lower socioeconomic status, and to be older at the age of transplantation. Of note, the immunosuppressive regimens were similar between the nonadherent and adherent patient groups.

The authors conclude that their results could have important implications for the identification and management of patients who are more likely to be nonadherent, and a prospective study is planned.

Original article Berquist RK *et al.* (2006) Adolescent non-adherence: prevalence and consequences in liver transplant recipients. *Pediatr Transplant* **10**: 304–310

An NSAID plus a PPI reduces risk of dyspepsia in patients with arthritis

Dyspeptic symptoms are the most frequent and most resource-consuming complication of therapy with NSAIDs. As NSAIDs are the predominant medications used to treat chronic arthritis, dyspeptic symptoms are a key factor in the cost-effectiveness of arthritis therapies.

Nonetheless, data on the factors that influence dyspepsia development are sparse. Cyclooxygenase 2 inhibitors (coxibs) confer a lower gastrointestinal risk, but higher cardiovascular risk, than NSAIDs, so Spiegel *et al.* conducted a meta-analysis to explore the incidence of dyspepsia during arthritis treatment with an NSAID, coxib, or an NSAID plus PPI.

The team identified 32 eligible, randomized, controlled trials that compared coxib vs NSAID; coxib vs NSAID plus PPI; or NSAID vs NSAID plus PPI in patients with chronic arthritis. Dyspepsia was defined as epigastric pain, dyspepsia, and nausea.

Treatment with a coxib, or with an NSAID plus PPI, was associated with a lower risk of dyspepsia than treatment with an NSAID alone. An NSAID plus PPI showed a greater risk reduction for dyspepsia than a coxib, in the two studies that compared these treatments directly. Indirect comparison of these treatments (possible because the mean incidence of dyspepsia in the NSAID arms of studies examining a coxib vs NSAID or NSAID plus PPI vs NSAID were similar) suggested that 11 patients required treatment with an NSAID plus PPI (or 27 with a coxib) to prevent one incident case of dyspepsia.

An NSAID plus PPI is superior to a coxib for preventing dyspeptic symptoms in chronic NSAID users. Prospective studies that compare these regimens directly are needed.

Original article Spiegel BM *et al.* (2006) Comparing rates of dyspepsia with coxibs vs NSAID + PPI: a meta-analysis. *Am J Med* **119**: 448.e27–448.e36

Serum resistin and leptin levels predict severity of acute pancreatitis

Peripancreatic adipocyte necrosis is characteristic of severe acute pancreatitis, and is thought to trigger adipocytokine release. Schäffler *et al.*, therefore, evaluated serum levels of three adipocytokines—resistin, leptin, and adiponectin—and found that resistin and leptin have potential as markers of peripancreatic necrosis, and can predict the severity of acute pancreatitis.

This single-center, pilot study enrolled 23 patients with acute pancreatitis. Three patients had clinically mild disease; CT scans in the other 20 patients showed moderate or severe pancreatitis. All patients were assessed using