

GASTROENTEROLOGY

Crohn Disease and Cough

Although as many as one-third of patients with inflammatory bowel diseases (IBDs) have extraintestinal manifestations, clinically significant respiratory manifestations of IBD are rare. However, clinicians from Castle Hill Hospital in Cottingham, United Kingdom, recently reported on a patient whose chronic dry cough was found to be associated with his existing Crohn disease.

The patient, a 62-year-old man, presented with dry cough (of 5 years duration) with no associated breathlessness, wheezing, postnasal drip, or systemic symptoms. His Crohn disease, with gastroduodenal involvement, had been diagnosed 10 years prior to presentation. After treatment with prednisolone and mesalazine, the Crohn disease was in remission, and the drugs were discontinued. The patient continued treatment with a proton pump inhibitor.

Examination of the patient's respiratory system revealed nothing remarkable, although a chest radiograph showed bilateral apical infiltrates. A full blood count, biochemical profile, angiotensin converting enzyme levels, and total (as well as specific) immunoglobulin levels were all normal. While results of fiber optic bronchoscopic examination and transbronchial lung biopsy also were normal, the bronchial biopsy showed evidence of mild inflammation.

A computed tomography (CT) scan showed dilated peripheral bronchi that appeared filled with fluid. The CT scan also revealed areas of patchy air-space shadowing and small branching opacities consistent with small airways involvement. The clini-

cians determined that these changes were due to Crohn disease. The patient was started back on prednisolone (at low dosage because his symptoms were mild).

The treatment was effective and the patient experienced complete resolution of his symptoms. A CT scan performed 6 weeks after treatment initiation showed definite improvement. The prednisolone was tapered and stopped 9 months later—at which point the patient relapsed. The prednisolone was reinstated and the patient remained asymptomatic at publication.

Smaller airways disease in IBD is rare, the authors say. Involvement is usually both at a younger age and at an earlier point in the disease course. While lung manifestations of IBD have been well described in the medical literature, they note, their patient was unique in the indolent presentation as well as the distinctive radiologic features. Large airways involvement, in the form of severe tracheobronchial stenosis with marked inflammation, has been seen before in Crohn disease, but their patient had stenosis in medium-sized airways, which led to the unusual CT scan findings.

Source: *Cough*. 2010;6:6. <http://www.coughjournal.com/content/6/1/6>
doi:10.1186/1745-9974-6-6.

CARDIOVASCULAR DISEASE

New, More Sensitive Troponin T Assay

Although a new, high-sensitivity cardiac troponin T (hs-cTnT) assay enables the measurement of cTnT even in healthy patients, its impact on risk assessment for acute coronary syndrome (ACS) is still unknown. To



find out how the new assay compares with the third-generation cTnT assay, researchers from the University of Uppsala in Sweden, analyzed data from a subsample of 1,452 randomly-selected patients with ACS enrolled in the Global Use of Strategies to Open Coronary Arteries IV (GUSTO-IV) trial.

During 30 days of follow-up in the GUSTO-IV trial, data on mortality and myocardial infarctions (MIs) were recorded, while at 12 months only data regarding all-cause mortality were collected. Using the 99th percentile level as a cutoff point, the new hs-cTnT assay identified 16% more patients with evidence of myocardial damage compared with the third-generation assay. The researchers say, “the additional patients diagnosed with the new assay showed a slightly higher clinical risk profile because they were older, more often men, and more often had diabetes mellitus than those negative [for myocardial damage] with both assays.”

The researchers chose the 99th percentile of the upper reference level for the comparison because it's the

mandated troponin T cutoff level for diagnosis of acute MI. However, they note that a cutoff is always a trade-off between sensitivity and specificity. They believe the 99th percentile level seems to be “a fair compromise,” bearing in mind that a lower cutoff level, such as 10 ng/L, might be used to identify a group with very low risk of new cardiac events.

Source: *Am Heart J.* 2010;160(2):224–229.
doi:10.1016/j.ahj.2010.05.023.

MENTAL HEALTH

Eating Disorders: Not One Size Fits All

While different eating disorders (EDs) are often linked to social avoidance and distress (SAD), novelty seeking (NS)—a qualitatively opposed temperamental trait to harm avoidance—often is linked to bulimic disorders. Researchers from the University of Extremadura Medical School in Badajoz, University Hospital of Bellvitge in Barcelona, the University of Barcelona, and the Autonomous University of Barcelona, all in Spain, recently conducted a study with the aims of finding clinically relevant and specific ED clusters based on the dimensions of SAD and NS, examining their specific relationships to eating and comorbid symptoms, and exploring the distributions of ED diagnoses across the empirical clusters.

The study sample included 825 case reports from female patients consecutively admitted to an ED unit who met criteria for an ED (according to *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition* criteria). The women had a mean age of 26.3 years, a mean ED length of 7 years, and had been diagnosed with a range of EDs, including bulimia nervosa (both purging and nonpurging), anorexia nervosa (restrictive or binge eating/purging), EDs not other-



wise specified, binge eating disorder, and nighttime eating disorder. Their scores on instruments measuring SAD and NS levels were submitted to cluster analysis.

Five clinically differentiated clusters emerged: low-mid NS without SAD, mid-high NS without SAD, low NS with high SAD, mid NS with high SAD, and high NS with high SAD. Almost half (45%) of the women had varying degrees of NS with no SAD, 34% had high SAD and mid NS, 13% had high SAD and low NS, and 8% had high SAD and high NS. When compared with patients with low SAD

levels, patients with high SAD levels showed greater eating and social impairment, ineffectiveness, ascetism (self-denial), suicide attempts, and lower education. Among the SAD clusters, patients with low-mid NS levels had the lowest rate of binge eating, vomiting, substance use, stealing, and compulsive buying, but the greatest levels of interpersonal distrust, harm avoidance, and cooperativeness. Patients with SAD and high NS levels had higher rates of alcohol and substance abuse, stealing behavior, compulsive buying, and pathological gambling.

Continued on next page

Continued from previous page

Patients with high levels of NS and low levels of self-directedness were more likely to use vomiting. Patients with a confluence of higher anxiety and impulsivity were more likely to use laxatives. Despite these findings, however, the researchers say they found no differences among the SAD clusters with regard to ED diagnostic category distribution or history of treatment.

Their findings may help shed light on ED phenomenology, etiology and treatment, the researchers say, and as an example, state that “for treatment benefits when exploring SAD in ED, it is also essential to look at NS levels, in order to focus on the motivation behind engaging in internalizing-externalizing impulsive behaviors.” All SAD clusters may be more vulnerable to impulsivity, they note, but may differ with regard to the type of behavior. They found differences between the SAD clusters in stealing, buying, and substance use. It is important, they add, to encourage those impulsive behaviors that may be functional because they lead to positive experiences, which help prevent reinforcing avoidance.

Source: *J Anxiety Disorders*. 2010;24:767–773.
doi:10.1016/j.janxdis.2010.05.010.

NEPHROLOGY

Early, Small Creatinine Shifts Predict Renal Trouble

Even slight and early elevations of serum creatinine levels after coronary angiography are strong predictors of contrast-induced nephropathy and 30-day renal damage, say researchers

from the University of Verona, the Laboratory of Clinical Biochemistry and Hematology in Verona, Catholic University in Rome, and the University of Novara, all in Italy.

The aim of their prospective, observational study was to evaluate the in-hospital incidence and predictors of contrast-induced nephropathy after coronary angiography as well as to assess renal function after 1 month in patients at risk for contrast-induced nephropathy. Patients were evaluated at baseline and at 12, 24, and 48 hours after exposure to contrast media. Evaluations also were conducted on 190 of the patients 1 month after discharge.

Of the 216 patients included in the study, 39 (18%) developed contrast-induced nephropathy and 15 (7% of the total population) had evidence of renal damage at 30 days. No baseline clinical variable was associated with contrast-induced nephropathy, and of the procedural variables, volume of contrast media was the only associated condition (odds ratio [OR] 1.47; 95% confidence interval [CI], 1.21–1.92; $P = .001$). Percentage change of creatinine value 12 hours from baseline was significantly higher in patients with nephropathy ($P < .001$). Patients who developed contrast-induced nephropathy showed a mean (SD) change of serum creatinine of +0.18 (0.19), while patients who did not develop contrast-induced nephropathy showed a mean (SD) change of serum creatinine of -0.002 (0.12) ($P < .001$).

The researchers suggest replacing measuring absolute values of serum creatinine with measuring the per-

centage of change from baseline to 12 hours. The percentage change also performs better than indexes derived from formulas used to calculate glomerular filtration rate. Further, a 5% change of creatinine value above baseline at 12 hours yielded 75% sensitivity and 72% specificity for detection of early contrast-induced nephropathy, and increase in creatinine value strongly correlated with renal impairment development at 30 days.

Since volume of contrast media was a strong determinant of the occurrence of contrast-induced nephropathy, the researchers strongly advise minimizing the quantity of contrast administered during diagnostic and interventional procedures. The researchers say that the percentage change of serum creatinine at 12 hours from baseline is a simple, easily available, and costless parameter that could improve diagnosis in patients who may be overlooked due to early discharge and who, instead, merit observation while preventive measures are taken. ●

Source: *Am J Med*. 2010;123(8):755–763.
doi:10.1016/j.amjmed.2010.02.026.