Helicobacter heilmannii gastritis

By Dr. Clinton Crowder

Most of us in the medical community are at least somewhat familiar with Helicobacter pylori, the Gram-negative rod that was identified in the late 1980s as the cause of a large proportion of chronic gastritides and upper gastrointestinal tract ulcers. However, its lesser known relative, Helicobacter heilmannii, is a less common cause of gastritis and was recently observed in a stomach biopsy obtained at Mercy Medical Center from a 12-year-old girl. The patient was referred to pediatric gastroenterology for chronic abdominal pain and associated vomiting. Esophagogastroduodenoscopy showed significant gastric erythema with nodularity in both the antrum and body of the stomach, and a Helicobacter CLO test was positive. Gastric biopsies showed chronic inactive gastritis, and an immunohistochemical stain highlighted scattered bacterial organisms consistent with H. heilmannii.

Like H. pylori, H. heilmannii is a gram-negative rod, but is significantly larger (5-9 μm versus 3.5 μm) and has a characteristic corkscrew appearance (versus comma or slight spiral shape of H. pylori) [see Figures 1 and 2]. H. heilmannii are slow growing organisms and bacterial cultures are not routinely performed for their identification. H. heilmannii is motile, oxidase, catalase, nitrite, nitrate and urease positive, and produces alkaline phosphatase and arginine arylamidase. It is sensitive to cephalothin, resistant to nalidixic acid, and sensitive to most other antibiotics.

In clinical practice, the typical morphologic features of the organisms on microscopic examination are usually sufficient to establish a diagnosis of H. heilmannii gastritis. Compared to H. pylori, H. heilmannii infection in humans is more often focal, with fewer organisms and is usually restricted to the gastric antrum. The histologic severity of the gastritis is also typically less than that usually seen in H. pylori infection. Because of cross-reactivity, commercially available immunohistochemistry antibodies against H. pylori often assist in the diagnosis, as can be seen in Figure 2.

Infection by H. heilmannii organisms occurs in less than 0.5% of patients undergoing upper GI endoscopy, with most infected patients complaining of dyspepsia, epigastric pain and/or acid reflux. In contrast to the relatively low prevalence in humans, H. heilmannii is very common in dogs, pigs and nonhuman primates. As such, patients with H. heilmannii infection are significantly more likely to report contact with a variety of animals than are patients with H. pylori gastritis, providing further support for a likely zoonotic transmission. Similar to H. pylori, an association of H. heilmannii with gastric cancer and MALT lymphoma has been shown.

Because of the cross-reactivity with MCL’s CLO test for H. pylori, our positive CLO reports now include a comment that states “A positive CLO test can in rare cases indicate an infection with Helicobacter heilmannii”.

While the distinction is an academically interesting one, the treatment for H. heilmannii gastritis is the same as that for H. pylori. The regimen most commonly recommended for first line therapy is termed “triple therapy”, and includes a proton pump inhibitor (PPI), amoxicillin and clarithromycin for 10-14 days.
New Pathologists Coming to Mercy

Mercy Pathology Department will be adding two new pathologists this summer. Dr. Joseph Eaton will begin on July 1, and Dr. Joseph Mitros will begin on July 22. Both pathologists are board certified in anatomic and clinical pathology, and both are currently finishing fellowships in cytopathology. The MCL staff are excited to welcome the new pathologists to the team.

Joseph Eaton, D.O. will be joining Pathology Associates of Central Iowa in July 2013. Dr. Eaton is currently completing a cytopathology fellowship at Indiana University in Indianapolis, Ind. His initial anatomic and clinical pathology residence was also completed at Indiana University. Dr. Eaton attended Des Moines University for his medical degree. He and his wife, Becky, have a home in Des Moines. Dr. Eaton was born and raised in the Lacrosse, Wisc., area. Dr. Eaton can be contacted through the Pathology Office by calling (515) 247-4352.

Joseph Mitros, M.D., will be joining Pathology Associates of Central Iowa in July 2013. Dr. Mitros is currently completing a cytopathology fellowship at the University of Iowa in Iowa City, Iowa. His initial anatomic and clinical pathology residency was also completed at the University of Iowa, along with his medical degree. Dr. Mitros is originally from the Iowa City area. He will be living in the Des Moines area. Dr. Mitros can be contacted through the Pathology Office by calling (515) 247-4462.

We are here for you

If you need assistance with changing your account information or have a question about your account please feel free to contact MCL Marketing at (515) 643-2701. Our staff is available to assist with technical questions, regulatory needs, and much more. Our website has been recently updated to provide you with information you need to serve your patients: www.mercydesmoines.org/mcl.

Supply and questions related to requisitions can be directed to our supply area at (515) 643-4949. We are happy to assist you with any changes or special needs you may have related to laboratory services.

Do you need results?

We are happy to provide you results over the phone. Please call our main number (515) 247-4439, or toll free 1-877-263-1622, for results. Results are not available at our draw stations/patient service centers. Our client services staff members at the phone number listed are standing by 24 hours a day, 7 days a week—including holidays and weekends—to provide you with results and other information you need to care for your patients.
MCL Testing Updates

CMV DNA reporting units changed. Cytomegalovirus (CMV) Quantitative Real-time PCR reporting units changed from copies of CMV to IU. One IU is equal to 0.53 copies CMV.

Hemoglobin and Hematocrit orderable now includes the MCV. The MCV is a calculation and therefore no additional billing will be added to the Hemoglobin and Hematocrit order.

Semen Analysis. Please ensure the patient has a provider’s order for semen analysis collections and drop offs. If an order is not presented, delay in testing will occur until an order is obtained from the provider. Specimen stability is crucial and we want to avoid any recollections as a result of delay in obtaining an order for testing.

Vitamin B12 and Folate. These specimens do not need to be protected from light. They can be submitted without foil and/or light protectant packaging.

Vitamin B1: Please draw in lavender EDTA tube and send WHOLE BLOOD. The specimen requirements are to freeze the whole blood in the original tube and to protect from light.

HLA B27 Antigen: The specimen type for this is the yellow ACD, solution A tube. These tubes are available through client services at 515-643-4949.

New Pain Management Profiles Available

Prescribing opioid analgesics for management of chronic pain has increased during the past decade. While an important treatment choice, the rate of prescription abuse, misuse and deaths as a result of opioid medications has risen as well. Pain management urine drug testing can help physicians safely manage patients by identifying aberrant behavior, undisclosed use and/or abuse and verify compliance with treatment.

Mercy Clinical Laboratory is pleased to offer pain management urine drug testing performed by PAML. This testing utilizes GC/MS and LC/MS-MS technology to identify both illicit and prescription drugs at detection thresholds with lower cutoffs than standard drug tests. The interpretive reports provide physicians with objective documentation of prescription drug adherence helping to meet therapy goals and improve patient outcomes. A special test requisition detailing patient medications is required when submitting orders for pain management testing to ensure appropriate interpretation of results.

Pricing and CPT codes are as follows:

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<thead>
<tr>
<th>Panel Code</th>
<th>Panel Name</th>
<th>CPT codes</th>
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Pain management Panel 1 includes: Alcohol, Amphetamines, MDMA/MDA, Cannabinoids (THC), Cocaine, Opiates, Phencyclidine (PCP), Proxyphene.

Pain management Panel 2 includes: Alcohol, Amphetamines, MDMA/MDA, Cannabinoids (THC), Cocaine, Opiates, Phencyclidine (PCP), Proxyphene, Barbiturates, Benzodiazepines, Methadone & Metabolite

Pain management Panel 3 includes: Alcohol, Amphetamines, MDMA/MDA, Cannabinoids (THC), Cocaine, Opiates, Phencyclidine (PCP), Proxyphene, Barbiturates, Benzodiazepines, Methadone & Metabolite, Meperidine, Tramadol, Acetaminophen

Pain management Panel 4 includes: Alcohol, Amphetamines, MDMA/MDA, Cannabinoids (THC), Cocaine, Opiates, Phencyclidine (PCP), Proxyphene, Barbiturates, Benzodiazepines, Methadone & Metabolite, Meperidine, Tramadol, Acetaminophen, Fentanyl, Carisoprodol, Buprenorphine, ETG/ETS.

Please note a special requisition is available to obtain the patient medication list. Call client services if you need this requisition.

If you would like additional information about this testing provided through our reference laboratory partner, PAML, please contact Mona Parekh, Outreach Manager, at (515) 643-4933.
Outpatient Draw Station has Moved

The Mercy Clinical Laboratory draw station located at the North Entrance has moved to the West Entrance. Patients will check-in for testing at the Medical Imaging/MCL Draw Station located on Level A just inside the West Entrance.

Hours at the new location will be Monday through Friday, 6 a.m. to 4:30 p.m.

We apologize for any inconvenience due to this change. Questions can be directed to the MCL Outreach Manager at (515) 643-4933.