ANSWER TO PHOTO QUIZ (PAGE 90)

A SPECIAL TWIST IN THE SUSPICION OF CANCER

DIAGNOSIS

The duodenal biopsies showed active inflammation with many periodic acid-Schiff (PAS)-positive macrophages in the lamina propria, strongly suggestive of Whipple's disease.

Whipple's disease is a rare, systemic infectious disease caused by *Tropheryma whipplei*.[1] The source and transmission route of this bacterium,[2] and the exact pathophysiological mechanisms involved, remain unclear, but there is sufficient evidence that indicates that patients with predisposing immunogenetic host factors (HLA-DRB1*13 and/or DQB1*06) are responsible for diminished Th1 and Th17 reactivity, which contributes to transition from the initial infection to classic Whipple's disease. This is probably why these patients show no immune response.[3] The most common symptoms are arthralgia, diarrhoea, steatorrhoea, weight loss, lymphadenopathy, abdominal pain, hypoalbuminaemia, and anaemia. In 80-90% of the cases, the first signs are seronegative arthritis and/or arthralgia, years before the gastrointestinal symptoms develop. In the late phase every organ system can be involved.[4]

Diagnosis is typically made via tissue biopsy stained with PAS, where PAS-positive macrophages in the lamina propria are observed, along with atrophy of the intestinal villi.[4]

In the work-up of our patient, inflammatory bowel disease and malignancy were high in our differential diagnosis. When we did not have a clear diagnosis after abdomen CT, gastroscopy, and colonoscopy, we performed a double-balloon endoscopy. In hindsight, this last examination was unnecessary. Although he had a typical presentation of Whipple disease, due to the rarity of this disease, we failed to consider it.

Without adequate treatment, Whipple's disease can be fatal, while antibiotic treatment can usually lead to rapid improvement. Several combinations of antibiotics have been used, the latest proposed strategy to treat *T. whipplei* infections is doxycycline 200 mg/day and hydroxychloroquine 600 mg/day for 12 months, followed by lifetime doxycycline monotherapy.[4]

We treated the patient with ceftriaxone 2.0 g/day IV for two weeks followed by cotrimoxazole 160/800 mg twice daily for one year. Regarding our patient, his signs and symptoms resolved, the laboratory results improved to within normal limits, and he began gaining weight. Because relapses are reported frequently, our patient will be monitored for life.

REFERENCES

1. Schoedon G, Goldenberger D, Forrer R, et al. Deactivation of macrophages with interleukin-4 is the key to the isolation of *Tropheryma whipplei*. J Infect Dis. 1997;176:672.
2. Fenollar F, Trani M, Davoust B, et al. Prevalence of asymptomatic *Tropheryma whipplei* carriage among humans and nonhuman primates. J Infect Dis. 2008;197:880.
3. Martinetti M, Biagi F, Badulli C, et al. The HLA Alleles DRB1*13 and DQB1*06 are associated to Whipple's disease. Gastroenterology. 2009;136:2289-94.
4. Dolmans R, Boel E, Lacle M, et al. Clinical manifestations, treatment, and diagnosis of tropheryma whipplei infections. Clin Microbiol Rev. 2017;30:529-55.