



LETTER TO THE EDITOR

Crohn's disease and intestinal tuberculosis: A clinical challenge

Doença de Crohn e tuberculose intestinal: um desafio clínico

Dear Editor,

The distinction between Crohn's disease and intestinal tuberculosis is a diagnostic challenge as they present similar clinical, radiological, endoscopic and histological features.^{1–3} A definitive diagnosis in these cases is extremely important, to avoid the toxicity of unnecessary anti-tuberculous therapy in patients with Crohn's disease and potentially fatal immunosuppressive treatment in patients with intestinal TB. Histological examination, complemented by other diagnostic tests, including tests of nucleic acid amplification, is pivotal in the differential diagnosis.^{1,2} Other methods like immunohistochemistry are emerging with promising results in determining early differentiation of both illnesses.³

Patients with Crohn's disease eligible for TNF antagonist (infliximab or adalimumab) or other immunosuppressive treatment are frequently sent to our Pneumologic Diagnosis Center for TB screening, as recommended by TBNET consensus statement.⁴ The screening program includes a symptom questionnaire, a tuberculin skin test (PPD RT23), interferon gamma release assay (IGRA) and chest radiography. The need for a solid diagnosis, before qualifying patients for TNF antagonists, led us to include in the screening programme a revision of biopsy specimens with acid fast bacilli smear, nucleic acid amplification test and cultural examination in recent biopsies or, at least, to ensure that these had previously been performed.

We therefore decided to carry out a retrospective cohort from 2008 to analyze how this measure has helped to exclude intestinal tuberculosis and safely qualify patients for anti-TNF treatment. We included 47 patients with the diagnosis of Crohn's disease; 51% female and mean age of 38 years old. Revision of endoscopic biopsies was possible in 25 (53%) individuals. Two (8%) cases of intestinal TB were diagnosed by this process, one with positive smear, other with both positive nucleic acid amplification test and culture. Both started anti-TB treatment. Patients eligible for immunosuppressive therapy had three different outcomes:

21 patients had TB latent infection and were submitted to 9-month isoniazid regimen; in 2 patients Crohn's disease was replaced by intestinal TB as a correct diagnosis; 24 patients had negative TB screening and qualified to for anti-TNF treatment. Twenty-seven patients started anti-TNF therapy (the 24 patients that had negative TB screening and 3 patients under TB latent infection treatment) and none developed active TB. In summary, this procedure allowed us to diagnose 2 cases of intestinal tuberculosis misinterpreted as Crohn's disease and to safely initiate TNF antagonist without any case of active TB following that treatment.

In conclusion, investigation of patients with suspected Crohn's disease should always include differential diagnosis with intestinal tuberculosis. Acid fast bacilli smear, nucleic acid amplification tests and culture are warranted in pathological examination of endoscopic biopsies. These procedures are currently routine practice in our Pneumologic Diagnosis Center, when investigating patients with suspected Crohn's disease. Alternative routes of differentiating both illnesses have been mentioned by others⁵ and may be added to the screening program in the future.

References

1. Kim BJ, Choi YS, Jang BI, Park YS, Kim WH, Kim YS, et al. Prospective evaluation of the clinical utility of interferon- γ assay in the differential diagnosis of intestinal tuberculosis and Crohn's disease. *Inflamm Bowel Dis.* 2011;17:1308–13, doi:10.1002/ibd.21490.
2. Lødrup A, Eiholm S, Meyer C, Bremholm L. Intestinal tuberculosis as a differential diagnosis of inflammatory bowel disease. *Ugeskr Laeger.* 2010;172:2902–3.
3. Ince AT, Güneş P, Senateş E, Sezikli M, Tiftikçi A, Ovünç O. Can an immunohistochemistry method differentiate intestinal tuberculosis from Crohn's disease in biopsy specimens? *Dig Dis Sci.* 2011;56:1165–70.
4. Solovic I, Sester M, Gomez-Reino JJ, Rieder HL, Ehlers S, Milburn HJ, et al. The risk of tuberculosis related to tumor necrosis factor antagonist therapies: a TBNET consensus statement. *Eur Respir J.* 2010;36:1185–206, doi:10.1183/09031936.00028510.
5. Jobbe OM. Interferon- γ may improve differentiation between intestinal tuberculosis and Crohn's disease. *Am J Gastroenterol.* 2010;105:2114, doi:10.1038/ajg.2010.206.

R. Rolo^{a,b,*}, S. Campinha^{a,d}, R. Duarte^{a,b,c,e}

^a *Centro de Diagnóstico Pneumológico de Vila Nova de Gaia, Vila Nova de Gaia, Portugal*

^b *Serviço de Pneumologia, Hospital de Braga, Braga, Portugal*

^c *Centro de Referência Regional de TBMR do Norte, Portugal*

^d *Serviço de Pneumologia, Centro Hospitalar de Vila Nova de Gaia/Espinho, Vila Nova de Gaia, Portugal*

^e *Departamento de Epidemiologia, Faculdade de Medicina, Universidade do Porto, Porto, Portugal*

*Corresponding author.

E-mail address: rui.rolo@sapo.pt (R. Rolo).