

Title:

Mesalazine induced interstitial pneumonitis in the COVID era

Authors:

Ana Aparicio Serrano, Elma Gallego Jiménez, Javier Castro Rodríguez, Pilar Soto Escribano, Eva Iglesias Flores, Sandra Marín Pedrosa, José Manuel Benítez

DOI: 10.17235/reed.2022.8635/2021

Link: [PubMed \(Epub ahead of print\)](#)

Please cite this article as:

Aparicio Serrano Ana, Gallego Jiménez Elma, Castro Rodríguez Javier, Soto Escribano Pilar, Iglesias Flores Eva, Marín Pedrosa Sandra, Benítez José Manuel. Mesalazine induced interstitial pneumonitis in the COVID era. Rev Esp Enferm Dig 2022. doi: 10.17235/reed.2022.8635/2021.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Carta 8635 inglés

Mesalazine induced interstitial pneumonitis in the COVID era

Ana Aparicio Serrano, Elma Gallego Jiménez, Javier Castro Rodríguez, Pilar Soto Escribano, Eva Iglesias Flores, Sandra Marín Pedrosa, and José Manuel Benítez

Gastroenterology Department. IMIBIC. Hospital Universitario Reina Sofía. Córdoba, Spain

Keywords: Mesalazine. Lung injury. Ulcerative colitis.

Conflict of interest: the authors declare no conflict of interest.

Correspondence to:

Ana Aparicio Serrano.

e-mail: aparicioserranoana@gmail.com

Dear Editor,

Mesalazine is the most widely used aminosalicylate for induction and maintenance of remission in patients with mild-to-moderate ulcerative colitis (UC) (1). Drug-induced hypersensitivity pneumonitis is considered very rare (< 1/10 000 patients).

We present the case of a 52-year-old male diagnosed with ulcerative pancolitis that started treatment with oral steroids and oral and topical mesalazine. Clinical remission was achieved after tapering steroids and treatment was maintained with mesalazine. However, four months later, the patient presented with rapidly progressive dyspnea and pleuritic chest pain, mild fever and night sweats. Basal oxygen saturation was 92% and his chest auscultation revealed globally diminished breath sounds with crackles at the bases. Chest X-ray showed bilateral interstitial infiltrates and laboratory tests showed a slight increase in inflammatory parameters.

COVID-19 pneumonia was ruled out with two negative PCR tests, but strict droplet and contact isolation precautions were implemented. Sputum culture, allergy study and autoimmunity tests were negative. The thoracic CT scan (Fig. 1A) showed bilateral extensive pulmonary ground-glass opacities and peripheral consolidations. Bronchial aspirates, bronchoalveolar lavage and transbronchial biopsies obtained by bronchoscopy were normal. At this point, mesalazine-induced lung injury was highly suspected, so the drug was stopped, which led to a complete resolution of symptoms and radiographic lesions (Fig. 1B).

Mesalazine-induced interstitial pneumonitis is a reversible adverse effect that can be observed in patients treated with both oral and topical formulation of the drug (2,3) following a variable time period (few days-40 months). Complete clinical and radiological resolution is usually seen within a few days or weeks after starting steroids, but may be fatal in some cases (4). There are few reported cases in the literature and its real incidence is unknown. The exact pathophysiology of mesalazine-induced lung injury is also unknown, but most authors agree that an immune mediated dose-independent mechanism is involved.

Withdrawal of mesalazine is key in long term management. Low doses of the drug are discouraged due to the high risk of reappearance of pulmonary symptoms and potential lethality. As inflammatory bowel disease is a chronic inflammatory condition, the majority of patients that stop using salicylates will probably need maintenance treatment with immunosuppressants and/or biologics, the same as in mesalazine intolerance (5).

The therapeutic strategy is influenced by previous treatment history, endoscopic remission at the time of mesalazine withdrawal and factors associated with poor prognosis, such as extensive endoscopic involvement and deep ulcers.

Therefore, the onset of respiratory symptoms in a patient with UC under treatment with salicylates should make the clinician formulate a differential diagnosis that includes infections, such as the current coronavirus disease 2019 (COVID-19), drug toxicity and the inflammatory bowel disease itself.

REFERENCES

1. Sicilia B, García-López S, González-Lama Y, et al, en representación del Grupo Español de Trabajo de Enfermedad de Crohn y Colitis Ulcerosa or Spanish Group for Working on Crohn's Disease and Ulcerative Colitis (GETECCU). Guía GETECCU 2020 para el tratamiento de la colitis ulcerosa. Elaborada con metodología GRADE. *Gastroenterol Hepatol* 2020;43(1):1-57. DOI: 10.1016/j.gastrohep.2020.07.001
2. Kotsiou OS, Gourgoulialis KI. A case report of mesalazine-induced lung injury: A reversible drug side effect. *Respir Med Case Rep* 2019;27:100865. DOI: 10.1016/j.rmcr.2019.100865
3. Kim JH, Lee JH, Koh ES, et al. Acute eosinophilic pneumonia related to a mesalazine suppository. *Asia Pac Allergy* 2013;3(2):136-9. DOI: 10.5415/apallergy.2013.3.2.136
4. Oi H, Suzuki A, Yamano Y, et al. Mesalazine-induced lung injury with severe respiratory failure successfully treated with steroids and non-invasive positive pressure ventilation. *Respir Med Case Rep* 2020;31:101157. DOI: 10.1016/j.rmcr.2020.101157
5. Martí-Aguado D, Ballester MP, Mínguez M. Risk factors and management strategies associated with non-response to aminosalicylates as a maintenance treatment in ulcerative colitis. *Rev Esp Enferm Dig* 2021;113(6):447-53. DOI: 10.17235/reed.2021.7797/2021

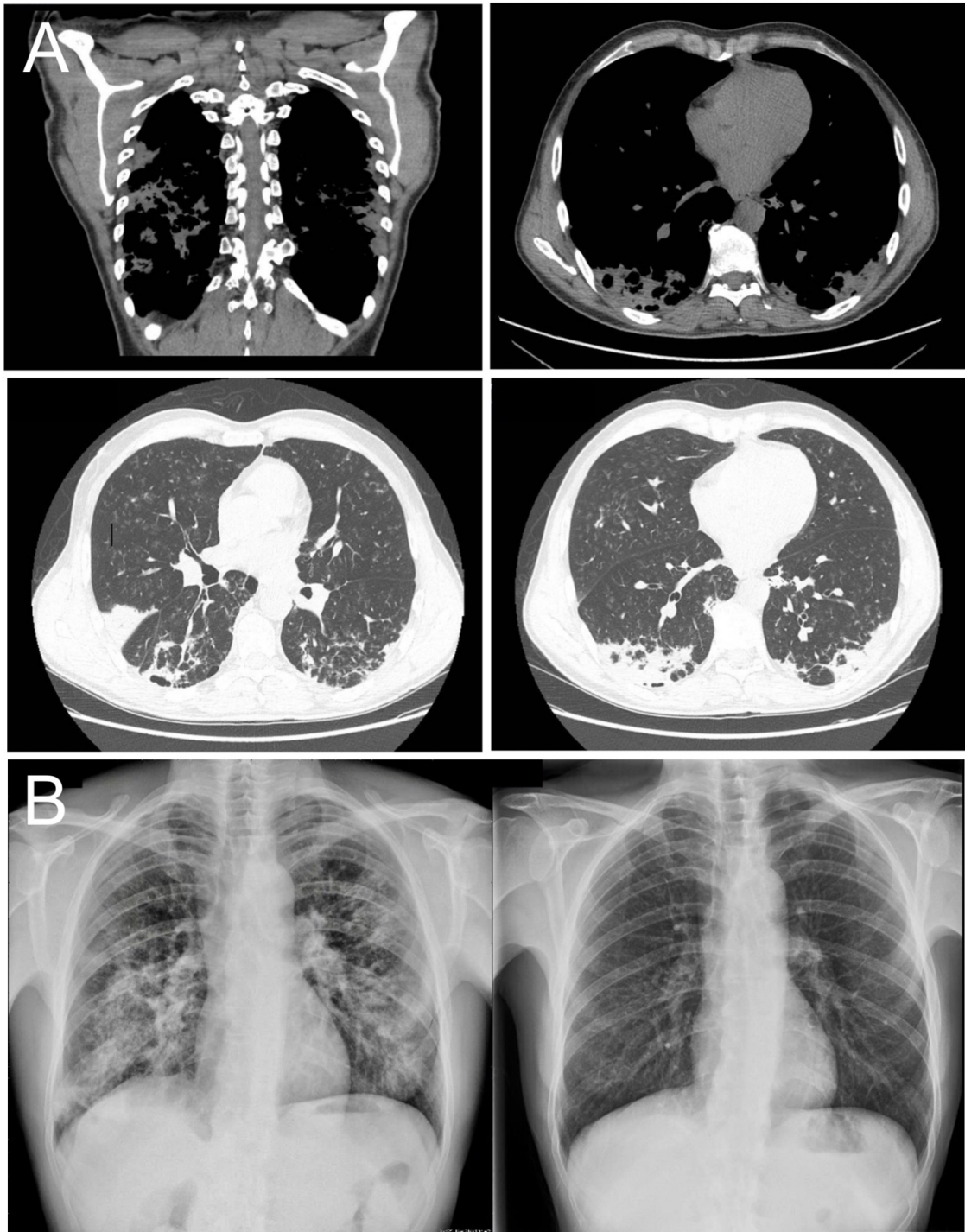


Figure 1. A. Thoracic CT scan. Bilateral extensive pulmonary ground-glass opacities with subpleural spare and peripheral consolidations with air bronchograms. These findings suggested subacute hypersensitivity pneumonitis. B. Chest radiographs. On the left, at the beginning of the process: bilateral interstitial infiltrates. On the right, 6 months after mesalazine withdrawal: complete radiological resolution.