

Short Communication

Hypersensitivity syndrome from isoniazid with positive patch test

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Case Report

A 68-year-old man was diagnosed in 1995 with pulmonary tuberculosis and treatment was initiated successfully with rifampicin, isoniazid and pyrazinamide. 2 years later, he developed fever, dyspnea and pleuritic pain. Chest radiograph showed fresh pulmonary involvement, so a new treatment regimen with rifampicin, isoniazid and ethambutol was started. 1 month later, he presented anew with fever, asthenia, and facial oedema, without arthralgia or rash. Laboratory evaluations showed a significant pancytopenia and a moderate increase in liver transaminases. Antituberculous treatment was discontinued and 10 days later, he was asymptomatic with normal blood count parameters.

Patch testing with rifampicin, isoniazid and ethambutol (each 50% pet.) was performed. Readings on day (D) 2 and D4 showed a positive reaction only to isoniazid (+++ D2). Isoniazid 50% pet. was negative in 10 healthy controls. Oral challenge tests with rifampicin and ethambutol, after obtaining written informed consent, were then negative.

Discussion

The incidence of adverse reactions to isoniazid treatment is low, the most common being hepatic and neurological (1–3). Skin reactions (4–6) and fever, as isolated symptoms, have also been described (7, 8).

Hypersensitivity syndrome includes a cutaneous eruption and may involve other organs. It usually develops 2 to 6 weeks after drug initiation. The drugs most often involved are aromatic anti-epileptics (phenytoin, carbamazepine and phenobarbital) and also allopurinol. Fever is frequently the 1st sign; cutaneous manifestations

(87%) usually begin as a morbilliform eruption, and lymphadenopathy (75%) is often generalized and tender. Liver involvement is the most common visceral manifestation; hepatomegaly or hepatitis (51%) with isolated elevation of liver transaminases may be present. Other manifestations are hematologic abnormalities. Prognosis is usually good, although morbidity is high, but in 10% of cases, death can occur from hepatic failure, coagulopathy and sepsis (4, 5, 9, 10).

We present a case of isoniazid induced hypersensitivity syndrome with a positive patch test, which avoided oral challenge with the causative drug.

References

1. American Society of Health-System Pharmacist drug information 1999.
2. Nariman S. Adverse reactions to drugs used in treatment of tuberculosis. *Adverse Drug React Acute Poisoning Rev* 1988; 4: 207–227.
3. McKeon J, Patel A M. Antituberculous therapy and acute liver failure. *Lancet* 1995; 345: 1170–1171.
4. Rubira N, Baltasar M A, Martí E. Hypersensitivity syndrome from isoniazid. *Allergy* 1999; 54: 1011–1012.
5. Liu B A, Knowles S R, Cohen L B, Werb M R, Shear N H. Pancreatic insufficiency due to antituberculous therapy. *Ann Pharmacother* 1997; 31: 724–726.
6. Holdiness M R. Contact dermatitis to antituberculous drugs. *Contact Dermatitis* 1986; 15: 282–288.
7. Herrejon A, Furest I, Marin M. Fiebre por isoniácida. *Arch Bronconeumol* 2000; 36: 78–79.
8. Gabrail N Y. Severe febrile reaction to isoniazid. *Chest* 1987; 91: 620–621.
9. Redondo P. Reacciones cutáneas adversas a drogas en neurología. *Rev Neurol* 1997; 25: 309–319.
10. Bocquet H, Bagot M, Roujeau J C. Drug-induced pseudo-lymphoma and drug hypersensitivity syndrome. *Seminars in Cutaneous Medicine and Surgery* 1996; 15: 250–257.