

A Rare Hypersensitivity Reaction to Quinine, a Long-Standing Antimalarial Agent: A Case of Probable DRESS

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Abstract

Background:

Quinine, one of the oldest antimalarial agents still used in malaria treatment and prophylaxis in endemic or travel settings, is also prescribed for nocturnal leg cramps and restless legs. Despite its long clinical history, quinine can cause rare but serious hypersensitivity reactions, including drug reaction with eosinophilia and systemic symptoms (DRESS), characterised by rash, eosinophilia, and visceral organ involvement, most commonly affecting the liver.

Case Presentation:

A 56-year-old woman presented with a 6-day history of generalised pruritic rash and 1 day of abdominal pain, nausea, and vomiting. She had commenced quinine three days earlier. Laboratory results revealed mixed liver injury (ALT 126–135 U/L, AST 59–79 U/L, ALP 215–436 U/L, GGT 239–358 U/L), eosinophilia ($0.83\text{--}1.47 \times 10^9/\text{L}$), and elevated CRP. Dermatology assessment concluded a drug eruption consistent with DRESS. She had a similar episode two months earlier following quinine exposure, which resolved after discontinuation.

Quinine was withdrawn and recorded as an adverse drug reaction. She received topical corticosteroids, oral antihistamines, and emollients, with rapid improvement in symptoms and liver function.

Causality Assessment:

The Naranjo Adverse Drug Reaction Probability Scale yielded a score of 8, indicating a probable quinine-induced reaction.

Discussion and Conclusion:

This case highlights quinine-induced DRESS with hepatic involvement. Though quinine remains important in malaria management, clinicians should recognise its potential for severe hypersensitivity, ensure early withdrawal, and document adverse reactions to prevent recurrence.