Abstract:

Methotrexate (MTX) toxicity can affect multiple organ systems, manifesting as nephrotoxicity, myelosuppression, hepatotoxicity, mucositis, and gastrointestinal upset. Serious adverse events are rare in patients prescribed low-dose methotrexate. We present a case of an 86-year-old female on a weekly dose of oral MTX 12.5 mg for rheumatoid arthritis presenting with painful gingiva and oral bleeding during outpatient antimicrobial therapy (OPAT) for osteomyelitis with vancomycin and piperacillin-tazobactam. She had acute kidney injury (AKI), elevated serum MTX levels, thrombocytopenia, neutropenia, and a vancomycin level three times therapeutic concentration. MTX toxicity was suspected to have been triggered by vancomycin and piperacillin-tazobactam causing AKI and impaired renal clearance of MTX which itself is nephrotoxic. The patient was managed with leucovorin, alkalized intravenous fluids, and filgrastim injections over a 2-week period. Her renal function continued to be reduced at 5-week outpatient follow-up, far after other markers of toxicity normalized. This case demonstrates the importance of considering potential drug-drug interactions and the need for robust monitoring for OPAT in select groups.

Reference:


Full Text