Rifampicin-Induced Thrombocytopenia

A 32 years old lady presented with the complaints of cough with expectoration, fever, loss of weight and loss of appetite for 1 month. She gave history of receiving anti-tuberculous treatment (ATT) (Category I & II), which included Rifampicin, for pulmonary tuberculosis twice in the past (in 2001 and 2003). She had no adverse reaction with CAT I ATT, but developed bleeding gums and purpuric rashes all over the body after 1 week of CAT II ATT, the details of which are not known.

At the time of presentation, routine blood investigations were normal. Her platelet count was 486000/mm³. Sputum AFB smear was positive and later culture grew Mycobacterium tuberculosis. In view of the past history of probable drug induced thrombocytopenia, ATT was started under observation. She was challenged with 150 mg of Rifampicin along with other anti-tuberculous drugs (CAT II). Four hours after the drug intake, she developed petechiae all over the body (Fig. 1 & 2) and bleeding from the gums. The platelet count dropped to 15000/mm³. Haematology consult was sought and they concurred with our diagnosis of drug induced thrombocytopenia. Rifampicin was stopped and the other anti TB drugs were continued. Her platelet count reverted back to normal after 3 days. She was then discharged on a 4 drug ATT regime comprising of Streptomycin, Ethambutol, Isoniazid and Pyrazinamide. After one month of antituberculous treatment, she reported for follow up and showed clinical improvement.

Rifampicin is a key drug in anti-tuberculous chemotherapy. Adverse reactions to Rifampicin are rarely serious. Rifampicin induced thrombocytopenia is an auto immune phenomenon. It is more common with high dose intermittent therapy, rather than with daily therapy and following resumption after prolonged cessation of therapy. Rifampicin-dependent antibodies against platelets are considered responsible for this adverse reaction.

If patients on antituberculous treatment report purpura, petechiae or bleeding gums, they should be asked to stop the drug and report for evaluation. As a rule, Rifampicin should never be re-started.

References

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