Stevens Johnson Syndrome with Severe Mucocutaneous And Systemic Reactions In One Patient During Treatment with Secondary Line Of Drugs For Pulmonary Tuberculosis

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A man with pulmonary tuberculosis was treated for first 5 months with triple primary antituberculosis drugs, later with Ethionamide 500 mg. daily, Cycloserine 500 mg. daily and INAH 300 mg. daily following sputum sensitivity test for A. F. B. After two months of treatment with the later, the patient showed severe mucocutaneous lesions like skin eruptions stomatitis, purulent conjunctivitis, and systemic reactions like fever, generalised lymphadenopathy and jundice.

CASE REPORT

A patient, 42 years of age, Male, peon of Nepal Rastra Bank, Kathmandu was admitted to Tokha Sanatorium on 20th July, 1967 with extensive tubercular lesions of the Right lung.

The chief complaints during admission were:- chronic cough with expectoration- gradually increasing, Fever (evening rise) and profuse haemoptysis.

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He gave no history of previous antituberculosis therapy. According to the patient the diagnosis of tuberculosis was done in one general hospital of Kathmandu where he was initially admitted with profuse haemoptysis. His sputum was found to be positive for A. F. B.

Treatment given in the begining: Streptomycin 1g. daily

INAH 300 mg. daily

PAS 4g. thrice daily

After five months of treatment with the above drugs, he did not show any improvement bacteriologically as well as radiologically. On sensitivity test, his A. F. B was found to be resistant to Streptomycin and PAS, but sensitive to INAH. Keeping in view of the sensitivity test he was switched on to Cycloserine 250 mg. twice daily and INAH 300 mg. daily and Ethionamide 250 mg twice daily on 22 nd Feb 1968. In 2 months he made good progress clinically as well as bacteriologically.

Systemic reactions

After two months of the treatment with the above mentioned drugs, his temperature rose up to 102. 4. F, and latter showed generalised lymphadenopathy of moderate size and jaundice.

Mucocutaneous Reaction

He complained of burning and itching sensation all over the body but no rashes were detected. He was given 50 mg of Phenergan twice daily with no effect. So Prednisolone 30 mg, in three divided doses was also added to the treatment which also proved to be ineffective. After a few days, he developed rashes all over the body with purulent conjunctivitis of both eyes. Later, the skin lesions were found to be wet at places and even become purulent. The lips were covered with crusts. The rashes began to exfoliate which came away in scales and continued to be so for many days. He had also stomatitis.

Treatment

All the antitubercular drugs Cycloserine, Ethionamide and I N A H were with-drawn. Twodays after the ceasation of the drugs, temperature was controlled. Tetracycline was given just after the ceasation of the antitubercular drugs as a precautions against secondary infection. Prednisolen was continued. Broadpectrum ophthalmic ointment was applied to his eyes.

He continued to improve and after about 20 days, his eyes and skin condition healed without scarring and pignmentation. He was kept on INAH 300 mg daily without any untoward reactions.

Investigations done

Urine: Albumin +

Bilirubin +

W. B. C. count 21,000/C. mm

No eosinophilia

Sputum examination for AFB Negative in direct smear

He was X' rayed twice during the period of reactions which showed improvement over the last X' rays taken before he had those complications.

Comment

The case described above was severe reactions to antituberculosis drugs. The other interesting thing to note in this case was his sputum sensitivity test, which turned out to be resistant to Streptomycin and PAS although the patient gave no history of previous chemotherapy. This could mean the case was primary resistant. The question might arise how far his history was true. The primary resistance means the patient was infected with drug resistant organisms which is different from acquired or secondary resistant case in the sense that it has developed resistance in the patient as a result of previous chemotherapy.

The case is a typical example of Stevens Johnson Syndrome which appear to have been caused by either Cycloserine or Ethionamide or both. The cause of Stevens Johnson syndrome is unknown, but it would seem to indicate that it is sensitivity reaction. It is a systemic reaction characterized by diffuse skin lesions due to focal vasculitis. The skin lesions include erythema, macules, papules, urticaria, purpura and bullae. In addition to the skin lesions, conjunctivitis, fever and secondary bacterial infections also occur. Carditis, arthritis, and polysyctosis may also occur. Associated haemolytic anaemia has also been described. Bower (1964) described a Chinese patient who developed skin rashes, hepatitis, and haemolytic anaemia caused by PAS. Harland (1962) described two cases of Stevens Johnson Syndrome due to Thiocetazone in African patients. Moore reported a similar case to Harland's also in an African patient. So far I am aware there are no account of such reactions to Cycloserine or Ethionamide.

Recent work has suggested that Mycoplasma is responsible for at least proportion of the cases of Stevens Johnson Syndrome.

The best treatment of Stevens Johnson Syndrome is prednisolone which could be covered with a broad spectrum antibiotic to prevent secondary infection. With the tuberculosis patients antituberculosis treatment must also be continued to prevent the tuberculous infection progressing. In this patient, pulmonary tuberculosis did not progress in spite of the fact that steroids were used without any antituberculous cover.

References

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