A CASE OF TROPICAL EOSINOPHILIA

BY

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The patient was a soldier, aged 35.

Foreign Service.—Ten years abroad (continuous service). Malaya, India (including two years in Bengal), and Burma. Returned to U.K. in June 1943.

He was admitted to Military Hospital, Copthorne, on March 19, 1945. For about eighteen months he had been complaining of:

1. Productive cough with tenacious yellowish sputum of moderate amount—in August 1944 he coughed up a little blood for two days.
2. Shortness of breath on exertion.

He also complains of lack of energy, but no loss of weight. He has been hoarse for a month.

On Examination.—He is very hoarse, cyanosed and there are marked signs of chronic bronchitis and asthma in his lungs.

B.P. 98/64. Liver and spleen not palpable.

E.N.T. Report—“Subacute adenitis, chronic pharyngitis, bilateral cervical adenitis, chronic laryngitis. Injection of both cords and arytenoids. Injection of upper part of mucous membrane of upper part of trachea.”


B.S.R. 8/mm. in 1st hour.

W.R. negative.

Urine: No abnormal constituents. Stools: Nil of note.

Sputum: N.A.D.

R.B.C. 5,300,000/c.mm., Hb. 90 per cent, C.I. 0·88.

W.B.C. 20,800/c.mm., polys. 32 per cent, lymphos. 22 per cent, eosinophils 46 per cent.

The clinical picture presented by this patient who has lived for ten years abroad (Malaya, India (Bengal two years), and Burma. He returned to U.K. in June 1943, i.e. 21 to 22 months ago), i.e. chronic bronchitis and bronchial asthma with subacute rhinitis, chronic pharyngitis, chronic laryngitis, and chronic tracheitis, with a very well-marked eosinophilia in the peripheral blood is that found in so-called tropical eosinophilia.

This case presents also cervical adenitis and I have seen generalized, discrete, painless adenitis in other cases of tropical eosinophilia.

Treatment in this case consisted of carbarsone tabs i (grains 4), b.d. for fourteen days.

Progress.

6.4.45: W.B.C. 22,400/c.mm., polys. 22 per cent, lymphos. 12 per cent, monos. 2 per cent, eosins. 64 per cent.

11.4.45: W.B.C. 21,900/c.mm., polys. 53 per cent, lymphos. 25 per cent, monos. 1 per cent, eosins. 21 per cent.
16.4.45: W.B.C. 18,400/c.mm., polys. 35 per cent, lymphos. 25 per cent, monos. 2 per cent, eosins. 38 per cent.
19.4.45: W.B.C. 14,000/c.mm., polys. 29 per cent, lymphos. 20 per cent, monos. 2 per cent, eosins. 48 per cent, basos. 1 per cent.
27.4.45: W.B.C. 12,000/c.mm., polys. 26 per cent, lymphos. 23 per cent, eosins. 49 per cent.

Tropical eosinophilia (Weingarten's syndrome/Loeffler's syndrome) has been described in East and West Africa, India, Ceylon, China, Havana, America, Samoa and other places. The symptoms include severe cough, expiratory dyspnoea like that of asthma, fever, loss of weight, pain in the chest, sometimes vomiting and diarrhoea and cutaneous manifestations (erythema nodosum, urticaria, lupus erythematosus). Signs include splenomegaly in some cases and enlargement of lymph-glands, superficial and deep. There is an increase of the total white blood cell count with an obvious eosinophilia which may be as high as 80 per cent, as has been my experience in West Africans.

Radiological examination may reveal nil of note but may show diffuse mottling, usually symmetrical and most dense around the hila. Mites have been found in the sputa by some but these are not usually demonstrated and the cause is still obscure. The disease not infrequently relapses.

It is my opinion that a total white blood cell count, especially with a differential white blood cell count, is an investigation which is not demanded nearly often enough in febrile illnesses, where its value should be obvious and also in afebrile illnesses, where its help, though less obvious, is sometimes invaluable, e.g. in the disease under discussion, in the afebrile phase of infectious mononucleosis, in the afebrile anaemic patient who has chronic malaria, as well as in various disorders of the blood.

Furthermore all cases of so-called chronic bronchitis and asthma who are ex tropics should be exhaustively investigated for evidence of tropical eosinophilia and an adequate course of organic arsenic prescribed in all cases of doubt. Of course, in all cases of eosinophilia, all possible causes should be excluded before a diagnosis of Loeffler's syndrome is made at all and these, in my opinion, include amoebiasis (I have seen one case of hepatic amoebiasis with an eosinophilia of 20 per cent and which increased on emetine therapy but finally disappeared), hydatid disease (not forgetting the liver) as well as the usual intestinal parasites—cysticercosis and trichiniasis always being in the Service mind. Filariasis must not be forgotten. Also lymphadenoma, allergic diseases, neoplastic disease and drugs, etc., as possible causes must not be forgotten. One case I well remember with chronic bronchitis, severe asthma and a marked eosinophilia in the peripheral blood, invalided to the U.K. from India as a case of tropical eosinophilia, died and histological examination revealed periarteritis nodosa. This patient had frequent bouts of paroxysmal tachycardia during some of the severe paroxysms of asthma.

The treatment of tropical eosinophilia is believed to be successful, although relapses do occur and in some cases the response to treatment is very slow, and
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consists in the exhibition of an adequate quantity of organic arsenic, either intravenously with ascorbic acid and Ca gluconate, or intramuscularly where N.A.B. would be used or orally when carbarsone gr. iv b.d. for fourteen days which was the treatment in this case, or stovarsol would be used.

It is said that during treatment the eosinophilia usually increases and falls within a fortnight or very slowly over a period of weeks, as the case presented would appear to have done. Weeks later I heard that the patient was much better.

I present this case for publication merely to emphasize the importance of asking every patient in which countries he has served; as all Service doctors do and in that way Loeffler's syndrome is immediately thought of in the asthmatic who has returned to the U.K. from tropical service. In the same way amœbiasis, kala-azar, cysticercosis and malaria, etc., are less likely to be missed.

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BIBLIOGRAPHY