ERYTHEMA CHRONICUM MIGRANS IN SIMLA, HIMACHAL PRADESH

R. C. SHARMA * AND N. L. SHARMA †

Summary

Seven cases of erythema chronicum migrans are presented. An unusual case with acute course, purpuric and bullous reaction is highlighted. A terminology of acute erythema migrans is suggested for such cases. No organism or vector could be isolated.

KEY WORDS: Erythema chronicum migrans, Acute erythema migrans, Bullous reaction, Purpuric reaction, Subepidermal oedema.

Introduction

Erythema chronicum migrans believed to be a tick-borne disease has been reported mostly from northern, central and eastern Europe[1] with stray cases from North America[2]. As far as India is concerned available literature does not reveal any such report.

We are reporting seven cases of this disease which were seen in this hospital between the months of April and July. Simla is situated at an altitude of 2300 to 2400 metres and has a temperate climate with heavy rains during this period. All these cases had typical features except one which was an 'acute erythema migrans' with an acute course, bullous reaction and associated severe constitutional symptoms. An attempt to isolate any causative organism or a vector was non-rewarding.

* Associate Professor

† Assistant Professor
Department of Dermato-Venereology
H. P. Medical College
Simla-171001.

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Case Reports

The clinical data of these cases is presented in the Table. In the first six cases, the lesions were single, mostly oval in shape with a peripheral band of erythema and oedema gradually progressing outwards leaving behind a pale clear centre (Fig.1.) Slight amount of serous crusting was seen in the centre.

The seventh case had an acute course. It started with burning sensation on abdominal skin where a patch of erythema appeared on subsequent morning. Erythema started spreading outwards leaving the central portion pale. On the fourth day blisters appeared in the centre. This was associated with severe burning and pain in the region and a moderate degree of pyrexia. On sixth day the patient reported to the skin out-patient and was admitted.

Touch smears from a biopsy specimen stained with Gram and Geimsa stains were non-informative. Blood VDRL was non-reactive. Routine investigations of blood and urine

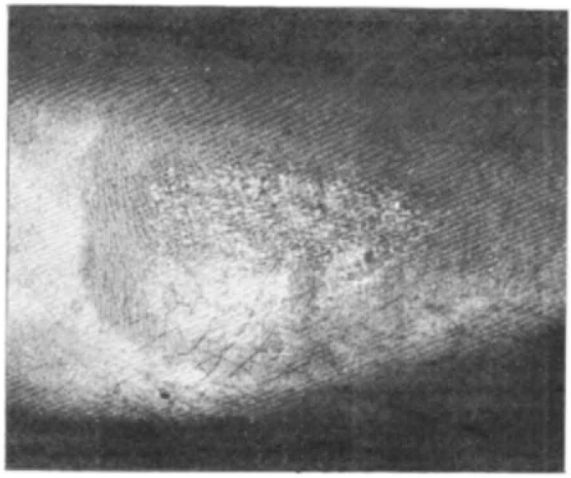

Fig. 1

Typical lesion showing erythematous border and clear centre.

Table showing Clinical Data of the Patients

S. No.	Age in years	Sex	Duration in days	Symptoms	Site	Size in cms	Treatment	Response
1.	4	F	30	nil	Right cheek	5×2½	Penicillin V	Clearing in seven days
2.	24	F	7	nil	Right cheek	10×12	Procaine Penicillin	Clearing in five days
3.	41	F	10	nil	Flexure forearm	12× 7	Tetracycline	Clearing in five days
4.	51	M	9	mild itching	Forearm	15×10	No record	—
5.	24	F	60	nil	Front of neck	No Record	Procaine Penicillin	Lost for follow up
6.	24	M	9	nil	Flexure forearm	10× 6	Penicillin V	No response
							Tetracycline	Clearing in five days
7.	24	M	6	Severe burning pain & pyrexia	Abdomen	35×20	Procaine Penicillin	Healing in 10 days

showed no abnormality. Dark-field examination of the smear prepared from the bullous fluid was negative for spirochetes. The bullous fluid was sterile on culture for pyogenic organisms. Skin biopsy sections stained with haematoxylin and eosin revealed a normal epidermis, the only change was a severe oedema in the subepidermal zone.

Treatment and Course

Patient showed excellent response to procaine penicillin. Pain and burning disappeared from the centre after 36 hrs. of starting the treatment. However, the periphery which was erythematous on the first day of examination became purpuric and bullous lesions appeared all along the margin the next day (Fig. 2). Few pustular

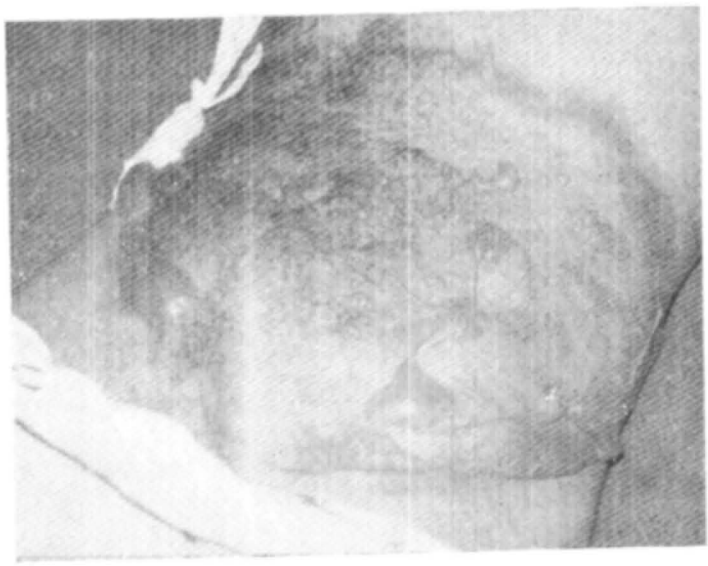

Fig. 2
Lesion of Case 7 showing purpuric and bullous border and vesiculo-bullous reaction in the centre.

lesions also appeared in the centre during the course of the disease. Culture from these lesions showed *staphylococcus aureus* resistant to penicillin, but sensitive to ampicillin and erythromycin. By the seventh day of penicillin therapy almost all bullous lesions subsided. The pustular lesions also cleared within three days of starting ampicillin (Fig. 3).

Discussion

The clinical picture which has emerged from our cases is as follows :-

a. Age in our cases varied from 4 years to 51 years.

b. Duration of the disease at the time of reporting to the physician was 6 days at the earliest while 60 days was the longest.

c. Lesions were solitary in all cases mostly oval in shape and progressed slowly. Two cases had serous exudation in the centre.

d. Mostly exposed parts were involved except one where abdomen was affected.

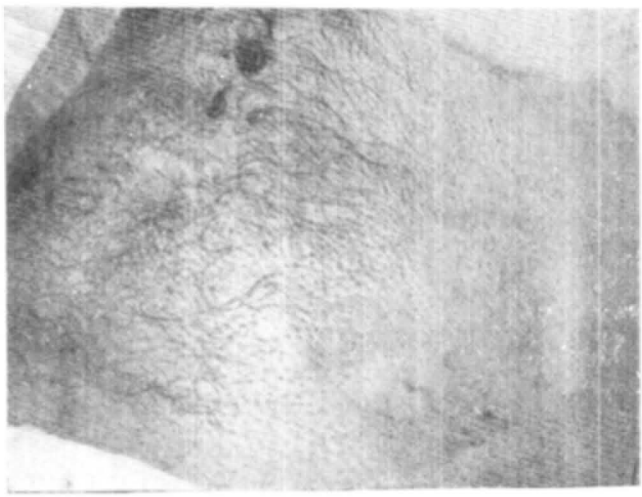

Fig. 3
Case 7 on 10th day of admission showing complete disappearance of lesions.

e. Lesions were asymptomatic except in two cases and one of them had very severe constitutional symptoms like pain, burning at the site and pyrexia.

f. Three cases showed excellent improvement with penicillin while the other two cleared with tetracycline. Penicillin was complete failure in one.

Aggravation of lesions was observed in two cases on application of steroids. However, it cannot be over-emphasised as it could be normal progression of the disease in the absence of specific treatment.

The last case had a similar clinical history but an acute course. The reaction in the centre was severe and bullous. The periphery was purpuric; a finding reported earlier by Gross et al[3], which later on became bullous. A diagnosis of 'acute erythema migrans' is suggested for this clinical type.

It is believed that the disease occurs following some arthropod bites: either ticks or mosquitoes, but in none of our cases were we able to extract any history of such a bite. Though a few patients were of the opinion that some insect may have been responsible none had noticed any. The histopathology of the lesions showing subepidermal oedema and a complete absence of cellular reaction suggests a toxic nature of the disease. Our attempt to isolate any causative organism was also futile. We have not been able to find out whether the *Ixodus ricinus* which is believed to be the probable vector is found in this part of the country or not.

With the observation of some more cases and their investigative profile we may be able to arrive at some conclusion regarding the cause or the vector of the disease in our country.

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