Malaysian Family Physician 2010; Volume 5, Number 2
ISSN: 1985-207X (print), 1985-2274 (electronic)

Online version: http://www.e-mfp.org/

Case Report

DRUG REACTION WITH HERBAL SUPPLEMENT: A POSSIBLE CASE OF DRUG INDUCED LUPUS ERYTHEMATOSUS

M Leelavathi[1], **NA Jamani**[1], **M Muhammad**[2], **J Adawiyah**[3], **NA Aziz**[1]
[1]Department of Family Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia (Leelavathi Muthupalaniappen, Nurjasmine Aida Jamani, Noor Azah Abdul Aziz)
[2]Department of Microbiology and Medical Immunology, Faculty of Medicine, Universiti Kebangsaan Malaysia (Marlyn Muhammad)
[3]Dermatology Unit, Faculty of Medicine, Universiti Kebangsaan Malaysia (Adawiyah Jamil)

Address for correspondence: Dr Leelavathi Muthupalaniappen, Consultant Family Medicine Specialist, Department of Family Medicine, Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Yaacob Latif, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, Malaysia. Tel: +603-9145 6123, Fax: +603-9173 8153, Email: drleelaraj@yahoo.com

ABSTRACT
A 24-year-old lady presented with four days history of fever, non-pruritic rash, ankle pain and swelling. She had consumed herbal supplement five days before the onset of symptoms. Examinations revealed erythematous maculo-papular lesions of varying sizes on sun exposed areas. Patient was suspected to have Drug Induced Lupus Erythematosus (DILE) and subsequently symptoms subsided rapidly on withholding the herbal medication.
Keywords: Adverse drug reaction, drug induced lupus erythematosus (DILE), herbal supplements.
Leelavathi M, Jamani NA, Muhammad M, Adawiyah J, Aziz NA. Drug reaction with herbal supplement: a possible case of drug induced lupus erythematosus. Malaysian Family Physician. 2010;5(2):99-100

INTRODUCTION

All medicines have potential to cause side effects and herbal products are no exception. Herbal medications have been documented to cause hypersensitivity reactions, systemic effects, phototoxicity, erythematous plaques, lupus-like syndrome, erythroderma and necrotic skin.[1,2,3] Drug Induced Lupus Erythematosus (DILE) is defined as development of lupus like symptoms after a drug exposure in patient without prior history of Systemic Lupus Erythematosus (SLE), which resolves rapidly with cessation of the offending drug.[4] Although there is no formal criteria available for its diagnosis, musculoskeletal involvement, serositis, positive antinuclear antibody (ANA) and antihistone antibody are some of its features.[4] Rapid symptomatic recovery on withholding the offending drug differentiates it from SLE although serological markers may remain abnormal up to a year after drug withdrawal.[5] Another adverse reaction involving both cutaneous and systemic effect is drug hypersensitivity syndrome or Drug Rash Eosinophillia and Systemic Symptoms (DRESS). We report a possible case of DILE caused by a locally available herbal supplement used to boost female fertility.

CASE REPORT

A 24-year-old lady presented with four days history of fever, non-pruritic skin rash and bilateral painful ankle oedema. The rash was mainly concentrated over the sun exposed areas. Five days prior to onset of symptoms, patient had consumed a commercially available herbal supplement to boost fertility.

Physical examinations revealed erythematous maculo-papular lesion of varying sizes on sun exposed areas of the face, dorsum of hand and feet (Figure 1, 2 and 3). Her temperature on first visit was 37.5°C.

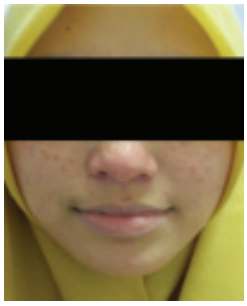
Figure 1

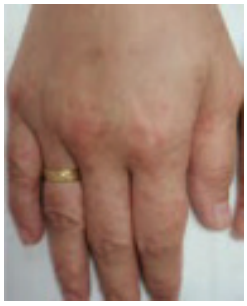
Figure 2

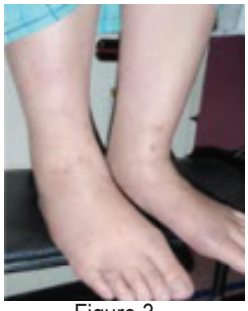
Figure 3

Initial full blood count (FBC) investigation was normal except for raised eosinophils level ($3.1x10^9$/L). Urine analysis revealed presence of protein (1+). Erythrocyte sedimentation rate (ESR) was raised (30 mm/hr). ANA was positive with a homogeneous titre of 1:640. Anti Double Stranded DNA (ds-DNA) was positive. Serum C3 complement was minimally raised (154; normal 79-152) and C4 was low (12.1; normal 16-38). Rheumatoid factor was negative. The results for RPR, antihistone antibody, Anticardiolipin for IgG and IgM, SSA/ Ro 52, SSa/ Ro 60 and SSa/ La test were all negative. Urine protein creatinine index and liver function was normal. Repeated anti ds-DNA after two weeks of initial presentation was negative which suggested that the first result could be false positive.

The product consumed was advertised as a traditionally prepared mixture of manjakani, kacip fatimah, honey, chlorophyll, spirulina and millets. Patient stopped herbal supplement and clinical recovery was achieved within two weeks. Repeat ANA level at third week remained the same at a titre of 1:640.

DISCUSSION

Many drugs, heavy metals, aromatic amines and ultraviolet rays have been known to cause DILE.[4,6] About 25% of DILE patients have skin manifestation which is clinically and histologically similar to SLE but lack the renal manifestations.[4] Patients may present with positive ANA along with any of the criteria for SLE.[5] Its immunologic characteristic is the presence histone autoantibodies in 95% cases, although not specific to DILE.[6] The presence of photo-distributed lesions, absence of hepatitis and enlarged lymph nodes in this patient are features against DRESS while brief drug exposure, raised eosinophil level and the involvement of kidney may indicate a possible overlap.

In this patient, the antihistone antibody done 15 days from onset of symptoms was negative. We hypothesize that initial acute phase was missed or that patient belonged to the minority with negative antihistone antibody (5%).[4]

The risk of developing SLE in a person with DILE is low. This is because the development of DILE is a genetically predetermined by the slow acylator phenotype while SLE is independent of this pathway.[7] DILE should be differentiated from SLE as the prognosis and long term management for these two conditions vary greatly.[8] Drug induced ANA should be monitored as it declines gradually from months to years.[9,10]

CONCLUSION

With the rising popularity of herbal supplement consumption, physicians should be aware of possible adverse reactions and interactions. The use of herbal products should be inquired as a routine part of drug history and should be withheld if adverse reaction is suspected. Patients also require education regarding the safety profile of herbal products to prevent further reactions. Physicians need to update themselves regarding trends in herbal supplement use, as its adverse effects and potential interactions are not well characterized. The reporting of all suspected adverse reaction will provide valuable data for monitoring these events.

REFERENCES

1. Ernst E. Harmless herbs? A review of the recent literature. *Am J Med.* 1998;104(2):170-8.
2. Ernst E. Adverse effects of herbal drugs in dermatology. *Br J Dermatol.* 2000;143(5):923-9.
3. Palanisamy A, Haller C, Olson KR. Photosensitivity reaction in a woman using an herbal supplement containing ginseng, goldenseal, and bee pollen. *J Toxicol Clin Toxicol.* 2003;41(6):865-7.
4. Vasoo S. Drug induced lupus: an update. *Lupus*. 2006;15(11):757-61.
5. Ghate JV, Turner ML, Rudek MA, *et al.* Drug-induced lupus associated with COL-3: report of 3 cases. *Arch Dermatol.* 2001;137(4):471-4.
6. Sarzi-Puttini P, Atzeni F, Capsoni F, *et al.* Drug-induced lupus erythematosus. *Autoimmunity.* 2005;38(7):507-18.
7. Brian L Kotzin. Drug induced lupus. In: Sterling G West, editor. Rheumatology secrets. 2nd ed. Philadelphia: Hanley & Belfus; Elselvier; 2002. p 147-51.
8. Rubin RL. Drug-induced lupus. *Toxicology*. 2005;209(2):135-47.
9. Callen JP. Drug-induced cutaneous lupus erythematosus, a distinct syndrome that is frequently unrecognized. *J Am Acad Dermatol.* 2001;45(2):315-6.
10. Uetrecht JP. Current trends in drug-induced autoimmunity. *Toxicology*. 1997;119(1):37-43.