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A CASE STUDY ON HERBAL THERAPY INDUCED ERYTHEMA MULTIFORME

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ABSTRACT

Erythema multiforme is an acute mucocutaneous hypersensitivity reaction. It is characterized by a skin eruption, with or without oral or other mucous membrane lesions, it can be induced by drug intake or several infections, immune conditions and food additives or several infections. We report a case of a female patient of age 26years was admitted in a Dermatology and Venerology department . The past medical history of the patient was suffered with left sided partial seizures (convulsions) when the patient was 5 years old and followed treatment for the management of seizures, then the patient again suffered with second episode at the age of 26 years and followed a treatment. After the course of treatment the patient had a one more episode of seizure before admitting to the hospital, during this condition the patient taken a treatment from the local ayurvedic doctor. Patient continued the therapy by using the ayurvedic pills, at this period of treatment patient had a illness of itchy erythematic lesions in distal parts of legs and later they rapidly erupted all over the body of upper limbs, trunk except face and scalp which was associated with a low grade fever, burning sensation and pain. Based on the investigations the physician diagnose the patient as Erythema multiforme the treatment plan followed as Injection Decadron, Injection Taxim, Injection Rantac Injection Avil, Tab.Dolo, Capsule Fourts B, IV Fluids, Normal Saline Soaks for legs, Soframycin Cream over erosions, BP and Temperature monitoring for 2nd hourly, recording the input and output charting, intake of plenty of water, Capsule Astymine forte.

INTRODUCTION:

Erythema multiforme is an acute mucocutaneous hypersensitivity reaction with a variety of etiologies. It is characterized by a skin eruption, with or without oral or other mucous membrane lesions.[1,2] It can be induced by drug intake or several infections, immune conditions and food additives (Table 1) [3] or several infections, in particular herpes simplex virus (HSV) infection,[1] which has been identified in up to 70% of erythema multiforme cases.[3] When HSV infection is implicated, the diagnosis is herpes-associated erythema multiforme. In these

cases, recurrent episodes of erythema multiforme are usually related to HSV infection.[4] A study by Ng and colleagues[5] detected HSV DNA in 50% of patients with recurrent idiopathic erythema multiforme. Erythema multiforme typically affects teenagers and young adults (20-40 years) , but the onset may be as late as 50 years of age or more.[6] The disease is more common in males than females in a ratio of 3:2.[7] Mycoplasma pneumoniae is another commonly reported etiology, especially in children, as is fungal infection.[8,9,10] Recently, erythema multiforme has been classified as minor, major, Stevens-Johnson syndrome or toxic epidermal necrolysis, where erythema multiforme minor is the mildest type of lesions and toxic epidermal necrolysis the most severe (Table 2) [2,4].

Case Report

A female patient of age 26 years was admitted in a Dermatology and Venerology department with chief complaints of itchy, painful erythm of violet colored solid raised lesions all over the body except face and scalp which was associated with burning sensation since 1week. Patient had a history of redness and burning sensation in both eyes since 3 days and subsided after taking medications from a local doctor. The past medical history of the patient was suffered with left sided partial seizures(convulsions) when the patient was 5 years old and followed treatment for the management of seizures, then the patient again suffered with second episode at the age of 26 years and followed a treatment with Tablet TRYPTOMER (Amitriptylline), Capsule HH.OMEGA(Omega3 fatty acids), Syrup FRUITIGEN, Tablet CAG-D_3(Vitamin D_3 supplements), Tablet NERVICURE-N, Capsule-CLOLE(1 tablet for week), Tablet CARDIMOL PLUS(Propranolol), Tablet CORCENE –plus for the management of seizures for 2 months. After the course of treatment the patient had a one more episode of seizure before admitting to the hospital, during this condition the patient taken a treatment from the local ayurvedic doctor. Patient continued the therapy by using the ayurvedic pills, at this period of treatment patient had a illness of itchy erythematic lesions in distal parts of legs and later they rapidly erupted all over the body of upper limbs, trunk except face and scalp which was associated with a low grade fever, burning sensation and pain**(Figure 1&2)**. On general physical examination patient was moderately built and nourished, decreased blood pressure (90/50 mm of hg), elevated body temperature (101^0f).On cutaneous examination patient had a multiple bilateral discrete erthymatous plaques, well defined annular plaques with purpuric centre over both upper limbs and trunk, multiple small pustules over both lower limbs, lesions present over Mons pubis .On laboratory examination patient had slight increase of total WBC (11,400/cmm) , neutrophils (79%) and serum chlorides (111 mmol/ L), decreased lymphocytes (14%) and hemoglobin (10.8 g/dl). From the above investigations the physician diagnose the patient as Erythema multiforme the treatment plan followed as Injection DECADRON(Dexamethasone) (4mg/ml, IV, OD), Injection TAXIM (Cefixime) (1gm, IV,BD), Injection RANTAC (Ranitidine) (2cc, IV, BD), Injection AVIL (Pheniramine maleate) (2cc,IV,H/s), TAB.DOLO(Paracetamol) (650mg, ORAL,BD), Capsule FOURTS B(Pyridoxine)(OD, ORAL), IV Fluids (1.Ringer Lactate+1.Dextrose), Normal Saline Soaks for legs (BD), SOFRAMYCIN Cream (Framycetin) (BD, over erosions), BP and Temperature monitoring for 2^{nd} hourly, recording the input and output charting, intake of plenty of water, Capsule ASTYMINE FORTE (Aminoacids +Vitamins) (OD).

DISCUSSION

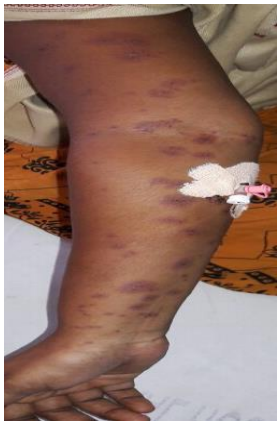
Erythema multiforme is an acute, self limited, and recurring skin condition which is a hypersensitivity reaction associated with certain infections and drugs. Erythema multiforme mostly occurs in adults at an age of 20-40 years. The main cause for occurrence of erythema multiforme is herpes simplex virus (HSV).

Table 1: Triggering or predisposing factors of erythema multiforme

Drugs	Antibacterial; sulfonamides, penicillins, cephalosporins, quinolones, anticonvulsants, analgesics, nonsteroidal anti-inflammatory drugs, antifungals
Infectious agents	Herpes simplex virus, Epstein –Barr virus, Cytomegalovirus, varicella-zoster virus, Mycoplasma pneumonia, hepatitis viruses, mycobacterium, streptococci, fungal agents, parasites
Immune conditions	BDG, hepatitis B immunization, sarcoidosis, graft versus host disease, inflammatory bowel disease, systemic lupus erythematous
Food additives or chemicals	Benzoates, nitrobenzoates, perfumes or terpenes, ammoniated mercury, oxybenzone, phenylbutazone, nickel, nitrogen mustard, capsicum, herbal medicine, rosewood

Table 2: Differential features of erythema multiforme minor, erythema multiforme major, Stevens-Johnson syndrome and toxic epidermal necrolysis

Category of erythema multiforme	Features
Erythema multiforme minor	Typical target lesions, raised atypical target lesions, minimal mucous membrane involvement and, when present, at only 1 site (most commonly the mouth). Oral lesions; mild to severe erythema, erosions and ulcers. Occasionally may affect only the oral mucosa. <10% of the body surface area is affected.
Erythema multiforme major	Cutaneous lesions and atleast 2 mucosal sites (typically oral mucosa) affected. < 10% of the body surface area involved. Symmetrically distributed typical target lesions are atypical, raised target lesions are both. Oral lesions usually wide spread and severe.
Stevens-Johnson syndrome	Main difference from erythema multiforme major is based on the typology and locations of lesions and the presence of systemic symptoms. < 10% of the body surface area is involved. Primarily atypical flat target lesions and macules rather than classic target lesions. Generally wide spread rather than involving only the acral areas. Multiple mucosal sites involved, with scarring of the mucosal lesions. Prodromal flu-like systemic symptoms also common.
Overlapping Stevens-Johnson syndrome and toxic epidermal necrolysis	No typical targets; flat atypical targets are present. Up to 10%- 30% of the body surface area affected. Prodromal flu-like systemic symptoms common.
Toxic epidermal necrolysis	When spots are present characterized by epidermal detachment of >30% of the body surface and wide spread purpuric macules or flat atypical targets. In the absence of spots, characterized by epidermal detachment >10% of the body surface,large epidermal sheets and no macules or target lesions



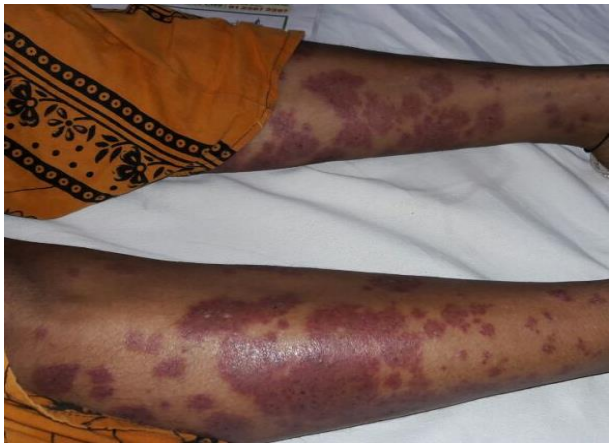


Figure 1: Painful erythm of violet coloured solid raised lesions, multiple bilateral discrete erthymatous plaques and **Figure 2**: Itchy erythematic lesions in distal parts of legs.

The most commonly identified clinical manifestation of herpes simplex virus is hypersensitivity reaction which occurs more than 50% of cases. The other etiological factor occurrence of erythema multiforme is mycoplasma pneumonia which commonly seen in children as a fungal infection and other drug related erythema multiforme. The main clinical sign for the confirmation of the erythema multiforme is itching and burning at the site of the eruption, demarcated red or pink macules than that become papules to the plaques. The treatment of erythema multiforme depends upon the severity of the clinical symptoms, based on the symptoms they are categorized into mild and major. Mild forms of the symptoms are usually healed within 2-6 weeks by managing the treatment with topical analgesics or anesthetics, local wound care and liquid diet. For the major symptoms, we manage the condition by intravenous fluid therapy, oral antihistamines and topical steroids for the symptomatic relief, systemic corticosteroids for the successful therapy in managing the erythema multiforme. In our case the patient develop erythema multiforme due to utilization of herbal medications but we are not having exact information on these evidence. The patient developed the clinical conditions like itchy, painful erythm of violet colored solid raised lesions all over the body, which are the indications of erythema multiforme. In our present case patient was effectively managed with the INJ Decadron (Dexamethasone), 4mg/ml, IV, Once a day for 5 days, which is used to prevent the release of inflammatory mediators which are responsible for the inflammation. After treatment with these medications patient condition was improved and discharged.

CONCLUSION

Erythema multiforme is dermatological disorder which is precipitated by drug therapy or infection. An important step in the management of erythema multiforme is recognition and withdrawal or prevention of contact with causative agent. The exact etiopathogenetic mechanism is not yet clear. In the case reported here, erythema multiforme triggered by utilization of herbal medications but the exact diagnosis was unclear and the disease was well controlled with Dexamethasone. As there remains no specific diagnostic test, early clinical recognition of disease remains essential to initiate appropriate treatment.

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