

Herbal medicine induced Stevens–Johnson syndrome: a case report

A. D. CHOWDHURY¹, M. ODA², A. F. MARKUS³, T. KIRITA⁴ & C. R. CHOUDHURY⁵

¹Department of Pediatrics, KS Hegde Medical Academy, Mangalore, India, ²Faculty of Health Sciences, Okayama University School of Medicine, Okayama, Japan,

³Department of Oral & Maxillofacial Surgery, Poole Hospital NHS, Poole, UK

⁴Department of Oral & Maxillofacial Surgery, Nara Medical University, Nara, Japan

and ⁵Department of Oral Biology, AB Shetty Memorial Institute of Dental Sciences, Mangalore, India, and International Centre for Tropical Oral Health, Poole Hospital NHS Trust, Department of Maxillofacial Surgery, UK

Summary. A severe form of Erythema multiforme (EM), diagnosed as Stevens–Johnson syndrome (SJS) was detected in a 10-year-old Indian male child who took herbal medication of plant origin prescribed by a traditional healer for remission of his fever. The child developed a severe and florid form of mucocutaneous oral ulceration, severe ocular manifestations, along with marked constitutional disturbances and dehydration. An extensive literature search revealed few previous reports of herbal drug induced EM and SJS. In India, traditional therapy with herbal preparation (Ayurvedic medicine) is not uncommon.

Introduction

A severe form of Erythema Multiforme (EM) known as Stevens–Johnson syndrome (SJS) is characterized by acute mucocutaneous and epidermal desquamation of the tissues of the skin, mucocutaneous surfaces and the eye [1]. Although the aetiology of EM is unknown, much of the research suggests an immunological association with HSV may be a possible cause [2]. Various allopathic drugs have been identified as precipitating factor(s) for development of EM or SJS, and have been reported elsewhere [3–8]. Among non-drug-induced cases, Mycoplasma pneumonia infection, has also been reported in association with SJS [9]. An association between intake of herbal drugs and onset of EM or SJS has been reported elsewhere as an extremely rare occurrence [10]. SJS is a rare condition with an incidence of two cases per 1 million population per annum.

Correspondence: Chitta Ranjan Choudhury, Coordinator, International Centre for Tropical Oral Health, IHCS, Bournemouth University & Visiting Professor, Poole Hospital NHS Trust, Department of Maxillofacial Surgery, Poole, Dorset BH15 2JB, UK. E-mail: chitta_choudhury@yahoo.com

Case report

A 10-year-old male child presented to the paediatric department of KS Hegde Medical Academy (Mangalore, southern India) with complaints of fever, severe weakness, discharge from painful swollen eyes, painful oral ulceration, difficulty in swallowing, and excess salivation (Fig. 1). Examination revealed massive sloughing and haemorrhagic crusting of ulcers involving the buccal mucosa and mucocutaneous tissues in the perioral region (Fig. 2). The ulcerated areas, including the vermilion border of the lips were coloured green due to the application of a topically applied ointment (Figs 1 and 2). There was a painful cervical lymphadenopathy. Ocular manifestation included conjunctivitis, periorbital oedema and a mixed (tear and pus) discharge from the eyes. Excess salivation and dribbling was evident. He was severely dehydrated, and had a temperature of 102 °C. His total body weight was 20 kg, with an average build. The child looked very weak and toxic. His parents explained that their child was suffering from fever for a week and they taken him to a traditional healer (herbal medicine doctor, an Ayurvedic physician in India),



Fig. 1. A case of herbal drug induced Stevens–Johnson syndrome in India.



Fig. 2. Green-coloured lotion was applied locally in perioral and vermillion border of the lips of the patient, which show severe sloughing and painful ulceration in these areas.

who had prescribed six green-coloured tablets to be taken twice a day for three days (Fig. 3). After taking the second tablet, the child developed itching and vesicle formation followed by ulceration in the

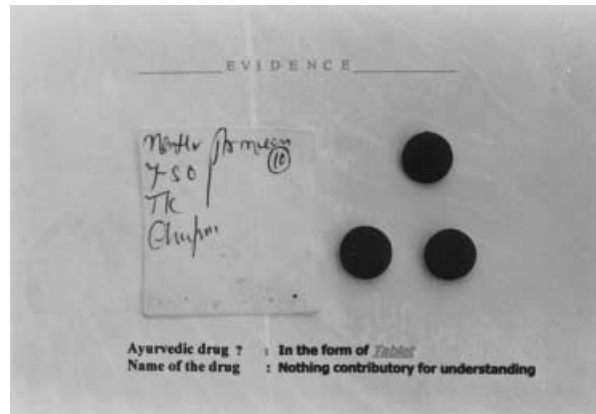


Fig. 3. Green-coloured tablets prescribed by a traditional healer.

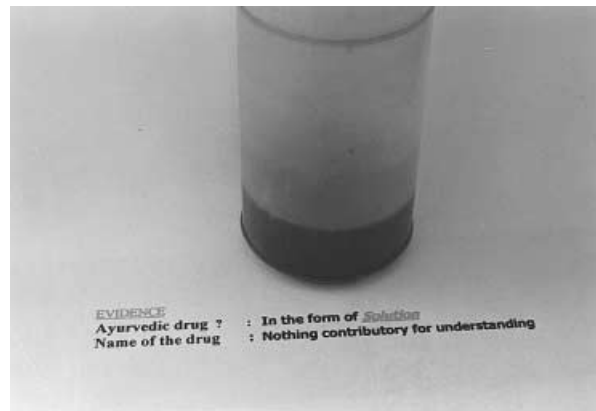


Fig. 4. Green-coloured herbal lotion prescribed by a traditional healer.

perioral region, without remission from fever. His symptoms became worse, including generalized weakness, profuse salivation and dribbling, and difficulty with swallowing and maintaining fluid intake. His hydration status was severely depleted. Moreover, the orbital and periorbital symptoms worsened. The parents returned with the child to the Ayurvedic physician. Not only did he advise them to continue with the same medicine, but he also prescribed an additional green coloured herbal lotion to be applied to the ulcerated areas (Fig. 4). As the condition worsened, the parents brought the child to this hospital to get appropriate treatment from a medically qualified doctor. The child was admitted as an inpatient to the department of paediatrics. Electrolytes were normal, Hb was 11%, Total Leukocytes Count 11, 500, Neutrophils 84%, Lymphocytes 11%, Eosinophils 3%, ESR 60 He was given supportive therapy with

nutritional and electrolyte replacement by IV infusion. Antibiotic treatment was started to prevent secondary infection of the mouth and eyes. Sedation and pain-relieving drugs were administered. After further investigations and assays, a diagnosis of a herbal drug-induced Stevens–Johnson syndrome was made. The patient was fully recovered within 10 days.

Discussion

In India, many herbal drug practitioners (53.5%) prescribe allopathic drugs in the guise of an ethical cure [11]. Reports on allergic reactions to herbal remedies exist in the medical literature [12]. The adverse effects of Traditional Medicine/Complementary Alternative Medicine (TM/CAM) are due either to the herbal product itself or to added impurities (allopathic synthetic drugs), or a combination of both [13]. Traditional Ayurvedic and Chinese herbal medicines, which are often contaminated with arsenic and mercury may result in sensory loss and muscle wasting in addition to severe dermatological manifestations, such as Bowen's disease, arsenical keratoses, reported elsewhere [14]. Stevens–Johnson syndrome has been reported following consumption of a healthy drink containing *Ophiopogonis tuber* [10].

Complications with perioperative and emergency care with TM/CAM were reported elsewhere [15,16]. We don't know the exact situation in India, where a very large proportion of population (65%) is using TM/CAM [11].

Résumé. Une forme sévère d'Erythème multiforme (EM), diagnostiqué comme syndrome de Steven–Johnson (SJS) a été détectée chez un garçon indien de 10 ans qui prenait une médication à base d'herbes prescrite par un guérisseur traditionnel pour la rémission de sa fièvre. L'enfant a développé une forme sévère et floride d'ulcération buccale cutanéomuqueuse, des manifestations oculaires sévères associées à des troubles constitutionnels marqués et une déshydratation. Une revue de littérature exhaustive a révélé de rares rapports antérieurs d'EM et SJS induits par médication par les plantes. En Inde, les thérapeutiques traditionnelles utilisant des préparations à base de plantes (médecine Ayurvédique) ne sont pas rares.

Zusammenfassung. Eine schwere Form eines Erythema exsudativum multiforme (EM), diagnostiziert als Stevens–Johnson Syndrom, wurde bei einem

10 jährigen indischen Jungen festgestellt, der pflanzliche Medizin auf Verschreibung eines traditionellen Heilers zur Behandlung von Fieber eingenommen hatte. Das Kind entwickelte eine schwere und floride Form einer mukokutanen oralen Unzeration, schwere okuläre Beteiligung und eine generelle systemische Beteiligung und Dehydratation. Eine extensive Literatursuche brachte wenige Fallberichte von EM nach pflanzlichen Medikationen zutage. In Indien sind solche pflanzlichen Arzneimittel nicht unüblich.

Resumen. Una forma severa de Eritema multiforme (EM), diagnosticado como síndrome de Steven–Johnson (SJS) se detectó en un niño indio de 10 años que tomó una medicación a base de hierbas de una planta originaria prescrita por un curandero tradicional para la remisión de su fiebre. El niño desarrolló una forma florida y severa de ulceración bucal mucocutánea, manifestaciones oculares severas, junto con alteraciones sistémicas marcadas y deshidratación. Una búsqueda extensa de la literatura reveló pocos estudios previos de hierbas medicinales inductoras de EM y SJS. En la India, el tratamiento tradicional con preparaciones de hierbas (medicina Ayurvédica) no es infrecuente.

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