ERYTHEMA SWEETOBULLOSUM - A RARE PRESENTATION OF COCCIDIOIDOMYCOSIS

Abukamleh H, Karapetians N, Heidari A, Petersen G, Johnson R

Internal Medicine Department, Kern Medical, Bakersfield, California

Introduction

Cutaneous manifestations of acute Coccidioidomycosis infection are common in endemic areas. Most common cutaneous lesions are Erythema Nodosum (EN) and Erythema Multiforme (EM). There is also a less common form of skin eruption associated with blisters that was first described in 1940 and was given the term “toxic erythema”, later called Sweet Syndrome. The term Erythema Sweetobullosum was first introduced by Dr. David J. Elbaum in 1998 in a 9 case-series that described a skin rash that was not EN or EM. The histologic findings of the rash seemed to change based on when the patient is seen; early on shows lymphocytic predominance, later neutrophil rich and eventually histiocytic or even granulomatous.

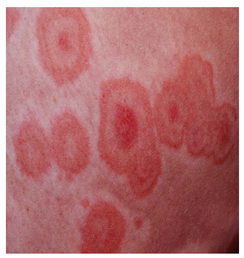
David J. Elbaum, MD

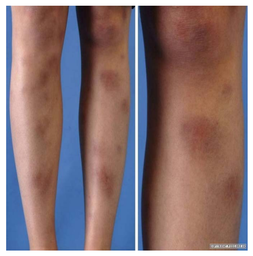
Method

Retrospective chart review that utilized our coccidioidomycosis data base at Kern Medical

Objectives

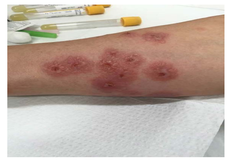
To describe 6 cases that were seen at Kern Medical from 2013-2017 of a skin manifestation of acute coccidioidomycosis infection.





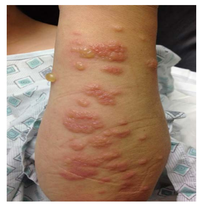
Description of Cases

Case1:



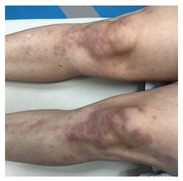
40 Hispanic female, no medical history, presented with 5 days of painful pruritic skin rash on bilateral upper extremities and neck, later spreading to legs. Associated with intermittent subjective fever and arthralgia. No inciting events, no new medications or skin care products. No allergies. Works as a field worker in Bakersfield. WBC 15.5, 22% bands, 1600 eosinophils. Cocci serology Reactive IgM with Titers <1/2. Chest X-ray showed RUL infiltrate. Patient was started on Fluconazole 800mg daily, improvement of the rash. Clinic follow-up cocci serology weakly reactive IgG, non reactive IgM with titers 1/2. Rash resolved

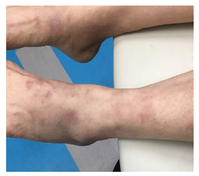
Case 2:



45 Hispanic Female, no medical history, presented with 8 days of a skin rash that started on RUE later spread to left arm and trunk. Rash is raised, pruritic and painful. No fevers or chills. Associated with dry cough, arthralgia and weight loss. No allergies or new medications. Lives in Bakersfield and works in fields. Chest x-ray was normal. Patient left ED before labs were done. Seen by PCP, started on Fluconazole 400mg. Follow-up in cocci clinic showed improvement of rash. Cocci serology very weak reactive IgM, Weak reactive IgG, Titers 1/2. Fluconazole increased to 600mg. Returned to clinic one month later with complete resolution of rash.

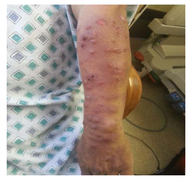
Case 3:

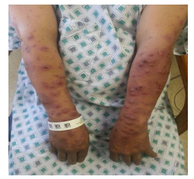


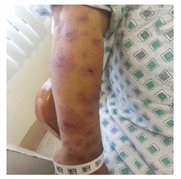


47 Hispanic female with history of Hypertension and DM, presented with cough, shortness of breath and skin rash for 7 days located on her bilateral forearms later spread to legs. Discharged from ED with antibiotics, returned in 2 days with worsening cough and painful pruritic raised rash. Labs significant for WBC 12.7, no bands or Eosinophils. Cocci serology Weakly reactive IgM, very weak reactive IgG, titers <1/2. Chest X-ray showed small right lower lobe infiltrate. Started on Fluconazole 800mg. Follow-up in cocci clinic showed resolution of the rash.

Case 4:

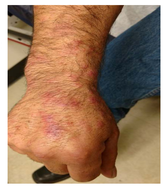


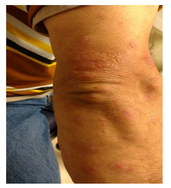


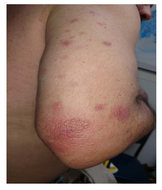


42 Hispanic male, no medical history, presented with 5 day history of blistering rash on his bilateral forearms. Rash is red, raised, pruritic, tense and bullae-forming. Associated with subjective fever and cough. No inciting events, no allergies. Works for “tree-spraying company”. Labs significant for WBC 12.3, Eosinophils 800, no bands. Cocci serology showed reactive IgM with titers <1/2. chest x-ray showed RLL infiltrate with questionable nodule. Skin Biopsy showed subepidermal vesicular dermatitis with lymphocytes and histiocytes, negative AFB and PAS stains. Started on fluconazole 800mg with improvement of the rash. Follow-up in cocci clinic in 2 weeks showed complete resolution of the rash.

Case 5:

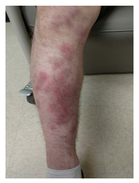


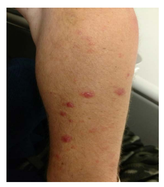


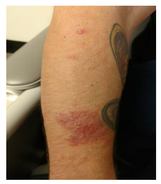


45 Hispanic male with no medical history, presented with 4 days of subjective fever and a diffuse rash that started on bilateral forearms then spread to lower extremities. Associated with a dry cough and mild pruritic chest pain. No inciting events, no allergies. Lives in Bakersfield and works in the fields. Seen at PCP office and given steroid cream and cough medication. Labs significant for WBC 16.7, 6% bands and 1600 eosinophils. Cocci serology showed weakly reactive IgM and IgG with titers <1/2. Chest X-ray showed bilateral infiltrates worse of Left lower lobe. Seen in cocci clinic where the rash was described as erythema nodosum at that time, Started on fluconazole 800mg with resolution of the rash by next clinic visit.

Case 6:







27 Caucasian Male with no medical history, presented with 7 days of skin rash and body aches. Rash started on left leg then spread to upper extremities and trunk. Associated with subjective fever and chills. Has been using anabolic steroids for 2 months. Rash was raised, pruritic and painful and had vesicular pattern. Labs significant for WBC 11.7, 11% bands, 200 eosinophils. Chest X-ray showed Right upper lobe density. Patient was discharged from ED with doxycycline pending cocci serology. Serology returned reactive IgM , weakly reactive IgG, with titers <1/2. He was started on Fluconazole 800mg. Patient was lost to follow-up

Conclusions

- Erythema Sweetobullosum is an inflammatory skin outburst presenting as symmetrical painful, well-demarcated plaques, papules and blistering lesion.
- Some cases also have pustules and vesicles.
- Associated with fevers and neutrophilic leukocytosis.
- Involves face, neck, chest and extremities in a photo distribution.
- It is seen in acute Coccidioidomycosis infection and is associated with excellent prognosis
- Diagnosis in made clinically based on presentation, biopsy is not required
- It is important to recognize this entity in endemic areas as it points to an underlying infection and helps in guiding the therapy.
- It is also important to recognize that Sweetobullosum is a hypersensitivity reaction and not dissemination of the disease
- Even though the mainstay therapy of sweet’s syndrome is corticosteroids, it is not recommended in acute Coccidioidomycosis infection as it may exacerbate the condition.

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