164. Erythema Sweetobullosum a Rare Presentation of Coccidioidomycosis
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**Background.** Erythema nodosum (EN) and erythema multiforme (EM) are known reactive cutaneous manifestations of acute infection with coccidioidomycosis. In endemic area, these findings could be diagnostic in the presence of proper clinical presentation. In our experience at Kern Medical similar to our colleagues in Arizona we have observed unique form of cutaneous manifestation of acute coccidioidomycosis with blisters. This form of skin eruption was given different names such as toxic erythema in 1940 and recently sweet syndrome in 2005. The term erythema sweetobullosum (ESB) was suggested first by David J. Elbaum in 1998 in San Joaquin Valley California in a nine case series. This study showed in contrast to sweet syndrome in ESB histology appears to change based on when the patient is seen. Early on ESB shows lymphocytic dominance, later will be neutrophil rich and eventually histiocytic phase and even granulomatous.

**Methods.** Retrospective chart review.

**Results.** Six cases are identified. Upon presentation they were between 27 and 47 years old half male and other half female. In all cases, ESB lesions were present as multiple tense erythematous plaques base with central crusting and surrounding cluster of vesicular formation. ESB lesions were located on bilateral upper and lower arms in all cases (Figures 1–3). IgM immunodiffusion serology was positive in all cases. Chest X-ray was positive for infiltration or nodule or cavity in five cases. Eosinophilia was present in four cases (800–1600). All cases had EM and two cases had EN present. Histopathology in one case described as subepidermal vesicular dermatitis with lymphocytes and histocytes. No evidence of dissemination was found in all six cases. One case lost follow-up but rest had significant clinical, radiological and serological response to fluconazole therapy with complete resolution of all skin manifestations.

Figure 1. 45-year-old female with erythema sweetobullosum.

Figure 2. 42-year-old male with erythema sweetobullosum.

Figure 3. 40-year-old female with erythema sweetobullosum.
165. Outcomes Comparing Initial Short vs Long Course Echinocandin Therapy in Patients with Candidemia Caused by Fluconazole Susceptible Strains
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1Medicine, Columbia University Medical Center, New York, New York; 2Bayer HealthCare Pharmaceuticals, New York, New York; 3Medicine, NewYork-Presbyterian Hospital, New York, New York; 4Columbia University Medical Center, New York, New York; 5), or amphotericin B (n = 0.04). Prematurity (n = 0.03), HCT (n = 0.02), Chemistry (n = 0.02), and Peripherally inserted (n = 0.09).

**Results.** 56 patients included: 21 in SC-ECH, 55 in LC-ECH groups. C. albicans (58%) most common species. Majority were male (59%) with median age 64 years (IQR 49–74), 62% were in ICU at time of CAND, 50% had recent surgery. No significant baseline differences between SC-ECH and LC-ECH groups, including in PCT bacteremia score ≥4 (43% vs. 42%; P = 0.4) or median APACHE (20 vs. 20; P = 0.684). There was no difference between SC-ECH vs. LC-ECH in CR (52% vs. 49%; P = 1.0), early MicroS (81% vs. 87%; P = 0.484), or SURV (62% vs. 73%; P = 0.523). For multi-variable analysis with duration of ECHIN therapy forced into the model, only PCT bacteremia score ≥4 remained an independent predictor of CR (OR 6.1, 95% CI 2.1–17.9; P = 0.001).

**Conclusion.** In adults with CAND due to routinely FLUC-susceptible species, early de-escalation from ECHIN was associated with similar outcomes, including day 7 MicroS. Early de-escalation based on early species identification has the potential to be a target for ASPs to optimize antifungal therapy without compromising clinical outcomes.

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166. Breakthrough Invasive Candidiasis in Children
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**Background.** Breakthrough invasive candidiasis (bIC) has been described in adults, but the epidemiology and outcomes in children are unknown.

**Methods.** Retrospective cohort analysis of children diagnosed with IC from 9/1/09 to 1/30/17. IC was defined as isolation of Candida spp. from sterile site despite receiving ≥3 doses of antifungal (AF) to which isolate is susceptible. Clinical and microbiological data, management, and outcomes were collected. Non-parametric and logistic regression statistics were applied.

**Results.** There were 92 patients with IC, 23 of which were bIC (Table 1). Underlying conditions included GI (n = 26), hemat/onc (n = 17), prematurity (n = 16), cardiac (n = 15), HCT (n = 4), SOT (n = 5), and other (n = 9). Patients received an azole (n = 17), micafungin (n = 5), or amphotericin B (n = 1) for median of 20 days (3–522) before bIC as prophylaxis (n = 8), targeted therapy (n = 5), or empiric liver therapy (n = 10). bIC was caused by non-albicans Candida in 16/23 (70%) cases. Compared with IC controls, children with bIC had increased ICU admission, vasopressor use, mechanical ventilation, and renal failure (all with P < 0.001). In multivariate analysis, immunosuppression was an independent risk factor for bIC (OR 39.4, 95% CI 7.5–205). Death attributable to IC occurred in bIC group (n = 3, P = 0.04).

**Conclusion.** bIC in our cohort was caused most frequently by non-albicans Candida spp. and associated with significantly worse outcomes, including mortality.

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167. Comparing Diagnostic-Directed Approaches to Empiric Therapy in the Treatment of Invasive Aspergillosis in Patients with Hematologic Malignancy
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**Background.** Early antifungal therapy of invasive aspergillosis (IA) has been shown to be associated with improved outcome. Given the difficulty to establish the diagnosis of IA based on conventional methods, early initiation of empiric antifungal therapy has been used in patients with clinically suspected IA. Diagnostic-driven approach (DDA) relies on using novel diagnostic methods (e.g., early galactomannan testing). In this current study, we compared the outcomes of hematological malignancy (HMA) patients with IA who were treated with Voriconazole using the DDA (DDA-Vori) vs. empiric therapy with a non-Voriconazole containing regimen (EMP-non-Vori) or empiric therapy with Voriconazole (EMP-Vori).

**Methods.** We retrospectively reviewed the medical records of 604 HM patients with documented, proven or probable IA (according to EORTC/MSG criteria) diagnosed between July, 1993 and February, 2016 at our center. We included 346 patients with underlying host factors, a suggestive CT findings of IA, and positive biopsy, fungal culture or galactomannan indicative of IA, and who received at least 7 days of DDA-Vori, EMP-Vori, or EMP-non-Vori. Outcome assessment included response to therapy (clinical and radiographic), all causing mortality and IA attributable mortality.

**Results.** The patients’ median age was 54 years and 59% were males. By multivariate analysis, factors that were predictive of a favorable response included: localized/sinus IA vs. disseminated/pulmonary IA (P < 0.0001), not receiving WBC transfusion (P = 0.01), and DDA-Vori vs. EMP-non-Vori (P < 0.0001). On the other hand, predictors of mortality within 6 weeks of initiation of IA therapy included disseminated/pulmonary infection vs. localized/sinus IA (P < 0.01), not having stem-cell transplant within 1 year prior of IA (P = 0.01) and EMP-non-Vori vs. DDA-Vori (P < 0.001).

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