13779

Epidemiology of cutaneous mucoepidermoid carcinoma: A United States population-based cohort analysis using the Surveillance, Epidemiology, and End Results database

Fatima Mirza, MPH, Yale School of Medicine; Humza Mirza, MS, Yale School of Public Health; Sara Yumeen, BSc, Department of Dermatology, Yale School of Medicine

Background: Cutaneous mucoepidermoid carcinomas (cMECs) are slow-growing neoplasms presenting as erythematous nodules with mixed mucus secreting and epidermoid cells. Limited case reports and single-institution studies exist. There remains a need for a more in-depth national study to understand patient characteristics and treatment modalities. In order to address this concern, the objective of this study was to examine the incidence, treatment, overall survival (OS), and disease-specific survival (DSS) of patients with cMEC.

Methods: A population-based cohort analysis was conducted in the Surveillance, Epidemiology, and End Results (SEER) database, 1973-2013, for all patients diagnosed with primary cMEC, ICD-9 M8430. Risk-adjusted associations between OS/DSS and patient characteristics and treatment modalities were assessed using Cox-proportional hazards models.

Results: A total of 83 patients with cMEC were identified. Patients were diagnosed at an average age of 68.5 (range 23-94), roughly equal diagnoses between genders (male 52%), and with most common site of presentation on the face (83.6%). Five-year OS and DSS were 63.3% and 73.25%, respectively. Younger age, earlier stage, face as lesion site, and receipt of surgical resection were associated with longer OS and DSS. In risk-adjusted models, older age (HR 1.104 [1.042-1.169]), more advanced cancer stage (HR 1.208 [1.010-1.444]), and receipt of surgical resection (HR 0.153 [0.042-0.550]) predicted DSS.

Conclusions: Our study presents the first available population-level data on cMEC. Determinants of survival include: age, cancer stage, and receipt of surgical intervention. Physicians should be cognizant of the broad age range of presentation and the lack of evidence of improved outcomes with radiation.

Commercial disclosure: None identified.

13786

Capillaritis which on DIF revealed IgA vasculitis

Alexandra Edelman, MD, Courtney R. Schadt, MD, Division of Dermatology, University of Louisville; Jeffrey P. Callen, MD, University of Louisville

Background: Adults with IgA vasculitis are at increased risk for developing renal involvement including end-stage renal disease. IgA vasculitis is classically manifest as palpable purpura and demonstrates leukocytoclastic vasculitis on routine processing. We report an adult whose biopsy revealed capillaritis but direct immunofluorescence (DIF) revealed an IgA vasculitis and renal biopsy showed IgA nephropathy.

Case Report: A 35-year-old Hispanic man with a past medical history of portal hypertension secondary to alcohol abuse presented to the hospital with ascites and a diffuse rash. The rash started on his feet three days prior and slowly spread up his legs to his abdomen and arms. He reported new onset joint pain in his right knee and elbow. He denied diarrhea or abdominal pain. He denied recent illnesses or medication use. At presentation, physical examination revealed petechiae on his dorsal feet, legs, abdomen, and arms. Findings from laboratory evaluation were notable for 3+ protein in the urine, 50+ urine red blood cells, and a creatinine of 2.29. Left leg punch biopsy revealed mild perivascular lymphocytic dermatitis with hemosiderin deposition, suggestive of a pigmented purpuric dermatosis. DIF showed IgA and C3 deposition around superficial dermal blood vessels, consistent with IgA vasculitis. Renal biopsy performed showed IgA nephropathy. Comment: Direct immunofluorescence is essential to confirm the diagnosis of IgA vasculitis as H and E can be nonspecific. Furthermore, small vessel vasculitis may not always present with classic palpable purpura and the clinician should be aware of these different presentations.

Commercial disclosure: None identified.

13801

Real-world effectiveness and drug survival of dupilumab: A single-center retrospective analysis

Molly Brazil, BS, Oregon Health & Science University; Christina Topham, BS, Department of Dermatology, Oregon Health & Science University; Eric Simpson

Clinical trials have shown dupilumab is safe and effective for adults with moderate to severe atopic dermatitis (AD), but evidence of its real-world effectiveness is limited. The aim of this study was to investigate drug survival and effectiveness of dupilumab in the real-world setting and gain insight into factors affecting treatment success. We performed a retrospective chart review of patients with AD seen in an outpatient dermatology clinic at Oregon Health & Science University who started dupilumab between 2016-2018. We identified 61 patients (mean age 43 years, M/F: 37/24) with a mean therapy duration of 13.3 months. Drug survival rates were 90.1% and 81.2% at 12 and 24 months, respectively. Seven (11.5%) discontinued dupilumab with reasons including: loss of insurance coverage (n = 3), controlled AD (n = 2), conjunctivitis (n = 1), and desire to conceive (n = 1). Thirty had recorded outcome measures at 16 and 52 weeks. At 16 weeks, mean reduction in the product of body surface area and investigator's global assessment (BSA × IGA) was 57.1%. Ten (29.4%) achieved an IGA of clear or almost clear, and 13 (38.2%) reported a patient global assessment (PtGA) of mild. At 52 weeks, mean reduction in, BSA × IGA was 90.2%. Thirteen (43.3%) achieved an IGA of clear or almost clear, and 15 (50%) reported a PtGA of mild. The results of drug survival analysis suggest dupilumab is effective in daily practice, supporting its use as a chronic therapy. In addition, the data suggest lack of insurance coverage and controlled symptoms are the most common predictors of discontinuation.

Commercial disclosure: None identified.

13803

Novel night cream containing melatonin, *Helichrysum italicum* extract, and carnosine helps recovery of human ex vivo skin explants following exposure to multiple environmental stresses

Mridvika Narda, PhD, Innovation and Development, ISDIN; Anthony Brown, PhD, Independent Scientific Advisor; Corinne Granger, MD, MSc, ISDIN Spain

While the use of adequate protection during the day is essential to combat photoaging, nighttime repair is its ideal complement to maintain skin homeostasis. At night, the skin's increased blood flow, increased permeability, together with diminished barrier function make it an ideal time for application of night repair creams. A night cream (NC) containing melatonin, Helichrysum italicum extract, carnosine, hyaluronic acid and natural collagen boosting peptides was designed to maximize the skin's recovery following day long exposure to multiple environmental stressors, including visible (VL) and infrared (IR) radiation and air pollution (AP). The ability of the NC to repair the damage induced by these stressors was examined in separate experiments using human skin explants. In all three experiments skin was exposed to VL, IR and AP prior to the application of the NC, thereby mimicking the application of the NC following daytime stress exposure. Specific end points for each stress condition were assessed by histologic sectioning, immunostaining, and quantitative image analysis. Exposure of skin explants to IR, VL and AP led to increases in the expression of MMP-1 (+2786%, $P < .01$), melanin (+119%, $P < .01$), and decreased collagen I levels (−43%, $P < .01$), respectively, compared with non-exposed skin. Application of NC after exposure to these stresses protected against these changes: MMP-1 levels were 35% lower ($P < .01$), melanin levels were 36% lower ($P < .0.5$), and collagen I levels 19% higher ($P < .05$), suggesting NC could play an important role in maintaining skin homeostasis in the face of multiple environmental stressors.

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