LB743

Anesthetic blister induction to identify biopsy site prior to mohs surgery

M Zaiac,[1] E Tongdee,[1] L Porges,[2] K Touloei[2] and S Prodanovich[3] *1 Florida International University Herbert Wertheim College of Medicine, Miami, FL, 2 Nova Southeastern University College of Osteopathic Medicine, Ft. Lauderdale, FL and 3 EZDERM, Naples, FL*

The utility of an anesthetic blister induced at a suspected biopsy site is investigated for utility as a means of identification for the location of the biopsy prior to Mohs surgery. A patient presented with a clearly identifiable neoplasm, which was biopsied and histologically diagnosed as a squamous cell carcinoma. Subsequently, the patient was scheduled for Mohs surgery. On presentation for the surgical procedure, the initial biopsy site was not clearly identifiable and delayed initiation of treatment. Upon injection of local anesthetic, blister formation was developed in the initial biopsy site, clearly depicting our surgical location. Our presented surgical case was confirmed with frozen sections upon Mohs surgery. The biopsy site was easier to locate with the assistance of a blister that formed as a result of local anesthetic administration.This is a clear example of a new technique that can be used as an adjunctive tool to highlight with a higher degree of certainty what may be an obscure operative site. Through the use of many available means to confirm biopsy site location, dermatologists can prevent unneeded delay and damage to the patient from wrong-site surgeries.

LB744

Estimating health care costs associated with recurrent outpatient cellulitis

J St. John, P Vedak, L Strazzula and D Kroshinsky *Dermatology, Massachusetts General Hospital, Boston, MA*

Cellulitis is a common diagnosis made in primary care, accounting for about 2.2% of all outpatient visits with an estimated 14.5 million cases diagnosed and treated annually. In addition, there are many mimickers of cellulitis, which pose challenges to practitioners and expose patients to unnecessary treatments and tests. It has been proposed that patients diagnosed with cellulitis multiple times per year may have a mimicking condition instead of cellulitis, or alternatively have complicated risk factors that warrant more specialized care. We conducted a retrospective study of all recurrent cellulitis cases (>1 case per year) presenting in Massachusetts General Hospital's outpatient setting between 2007 and 2011 in order to quantify the cost of these visits. We used national cost data provided by the Centers for Medicare and Medicaid. A total of 136 patients were included in the study and were seen for 573 outpatient visits, with an average of 4 visits per patient. The minimal estimated total cost of these visits over the 5-year period was $94,932, excluding costs of antibiotics, with an average cost of $165 per visit (median $154 per visit). Diagnostic lab tests were ordered for 34.2% of patients, including CBC and blood cultures, imaging studies were ordered for 21.4% of patients. Ninety-one diagnoses (22.7%) were treated with IV antibiotics and 122 diagnoses (30.4%) were treated with more than one antibiotic. There was wide practice variation with more than 4 different IV antibiotics and 8 oral antibiotics prescribed for patients. Adverse effects secondary to antibiotic usage were reported in 11.5% of patients, including cutaneous drug reaction (7.5%), and *Clostridium difficile* infection (2.9%). While there is no gold standard for diagnosis or treatment of cellulitis, our analysis demonstrates that practitioners often order unnecessary tests and treatments. This study provides a clear picture of the prevalence of recurrent cellulitis in the outpatient setting and is likely an under-estimate of the financial burden associated with its management and complications.

LB745

Inhibition of the hedgehog pathway with sonidegib (LDE225) in advanced basal cell carcinoma

MR Migden,[1] J Lear,[2] R Gutzmer,[4] M Marker,[3] C Pallaud,[5] A Guminski[6] and R Dummer[7] *1 University of Texas MD Anderson Cancer Center, Houston, TX, 2 University of Manchester, Manchester, United Kingdom, 3 Novartis Pharmaceuticals, Inc., East Hanover, NJ, 4 Medizinische Hochschule Hannover, Hannover, Germany, 5 Novartis Pharma AG, Basel, Switzerland, 6 Royal North Shore Hospital, St Leonards, Sydney, NSW, Australia and 7 University Hospital, Zurich, Switzerland*

Basal cell carcinomas (BCCs) show aberrant activation of the hedgehog (Hh) pathway. Sonidegib selectively blocks Hh signaling. Sonidegib treatment achieved disease control in a phase 2 study of advanced BCC (BOLT;NCT01327053). Glioma-associated oncogene homolog 1 (*GLI1*) expression is a marker for Hh activation. Associations of *GLI1* levels with clinical outcomes are presented here. Pts with locally advanced BCC (LaBCC; n=194), not amenable to curative surgery or radiotherapy, or metastatic BCC (mBCC; n=36) were randomized 1:2 to sonidegib 200 or 800 mg daily. Clinical response was assessed using modified RECIST (LaBCC) or RECIST 1.1 (mBCC) by central review. *GLI1* levels were measured in 137 LaBCC and 13 mBCC tumor samples collected at baseline (BL), week 9, and week 17 by qRT-PCR. *GLI1* levels decreased at weeks 9 and 17 with sonidegib 200 mg (median % changes, –91.07 and –93.75, respectively; P <.0001 vs BL) and 800 mg (–96.16 and –96.02, respectively; P <.0001 vs BL). Decreases were similar with LaBCC and mBCC (adjusted for dose, BCC subtype). At week 17, *GLI1* was reduced from BL in pts who had disease control (complete or partial response [CR or PR] or stable disease [SD]). Median % changes by response with 200 mg were CR, –99.47; PR, –90.79; SD, –96.58; progressive disease (PD), +10.19 and with 800 mg were PR, –96.96; SD, –96.07 (no CR or PD). Pts with greater *GLI1* inhibition at week 17 in the 800-mg group had a greater risk of grade ≥2 creatine kinase elevation than those in the 200-mg group. Sonidegib gave substantial reductions in GLI1 levels in advanced BCC across doses, time points, and BCC subtypes. *GLI1* was reduced from BL in pts with disease control. These findings support sonidegib as a treatment for advanced BCC.

LB746

A case of multiple basal cell carcinoma combined with giant epidermal cyst and hemangioma

Y Wang,[2] G Zhang,[1] Q Zhang[2] and F Fang[2] *1 Dermatology, 4th Affiliated Hospital of Hebei Medical University, Shijiazhuang, China and 2 Institute of Dermatology, Chinese Academy of Medical Sciences, Nanjing, China*

To report a rare case of dermatology.A 46-year-old female patient presented with a nail-sized black patch on her medial side of right upper arm, with frequent ulceration and no obvious subjective symptoms. 5 years ago, similar lesions happened on her right oxter and back, expanded gradually, with occasional itch and ulceration. Recently, she presented to our clinics and was taken a biopsy of the lesion on her right upper arm. The result shows basal cell carcinoma. She wasn't with any systemic diseases. Furthermore, she presented with a mass on her abdomen 20 years ago, and enlarged gradually. Also, another mass appeared on her right oxter. Dermatological examination revealed well-marginated black-brown patch sized 4.50cm×4.50cm on medial side of right upper arm with irregular pigment and slightly uplifted margin. A 1.5cm ×1.5cm sized, well marginated black patch was found on right oxter and back respectively, with slight uplifted margin. Faint blue rounded coin-sized mass was found on right oxter, with soft tactility and certain activity. There is also a 4.0cm×6.0cm sized cystic subcutaneous mass with clear margin and certain activity in her abdomen. Histopathology of the patches located on medial side of right upper limb, oxter and back: Hyperkeratosis combined with parakeratosis. Cancerous tumor is consisted of basaloid cells, with palisade arrangement in dermis. Part of the tumor cell is epitheliloid, ranged like gland cavity structure or along 2 rows. Mesenchyme around the hyperplasia are hardened. Histopathologic examination of the mass in the abdomen showed epidermal cyst. The mass of her right oxter showed mature capillary proliferation and angiotelectasis in dermis and epidermis.The lumen contains plasma and a large number of red blood cells. Diagnosis: multiple basal cell carcinoma combined with giant epidermal cyst and hemangioma.

LB747

Optical coherence tomography assessment of chronological ageing: A population study

LM Vasquez-Pinto,[1] RN Vêncio[2] and AZ Freitas[3] *1 Natura Inovação e Tecnologia de Produtos, Cajamar, Brazil, 2 Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, Brazil and 3 Centro de Lasers e aplicações, Instituto de Pesquisas Energéticas e Nucleares, São Paulo, Brazil*

Optical coherence tomography (OCT) is a 2-dimensional technique that allows histometric measurements in vivo and both a qualitative and quantitative assessment of chronological (intrinsic) ageing. OCT images were taken at periorbital region, randomly, from 451 female volunteers, aged 18 to 90. Protocol was approved by local Ethic Committee and all volunteers gave their informed consent. OCT measurements allowed the monitoring of changes in skin roughness, both in the stratum corneum (SC) and the epidermis (EPI) which strongly correlated with volunteers age (p<0,001). Changes in SC roughness also correlated with EPI roughness changes suggesting that histological mechanisms that go under the skin can be reflected in the surface (p<0,001). Changes in SC thickness were correlated with age (p<0,001) but not EPI thickness. Besides, both SC and EPI roughness were correlated with sun exposure and FPS use (p<0,01). When we compared OCT images and self-assessments regarding wrinkle perception, we observed that both SC and EPI roughness and depth of the roughness increased with periorbital wrinkle perception (p<0,01). Similarly, SC and EPI roughness correlate with volunteers' self-assessment of sagging and elasticity (p<0,01). In conclusion, OCT proved to be a useful technique to discriminate intrinsic age-related morphological changes from skin surface to a depth of epidermis and identify cosmetic habits that may prevent skin ageing.

LB748

Post-hoc analyses of the effect of AN2728 topical ointment, 2% on atopic dermatitis-associated pruritus

ZD Draelos,[1] LF Stein Gold,[2] DF Murrell,[3] M Hughes[4] and L Zane[4] *1 Dermatology Consulting Services, High Point, NC, 2 Henry Ford Medical Center, Detroit, MI, 3 St. George Hospital, University of New South Wales, Kogarah, NSW, Australia and 4 Anacor Pharmaceuticals, Inc., Palo Alto, CA*

Two pooled analyses limited to assessment of anti-pruritic activity of AN2728 topical ointment, 2% (AN2728) were conducted using data from patients with atopic dermatitis (AD) from 4 studies: study 1: phase 1b trial of AN2728 systemic exposure, safety, and pharmacokinetics (PK) under maximal-use conditions in children and adolescents; study 2: phase 2a trial of AN2728 safety, tolerability, and pharmacokinetics in adolescents; study 3: phase 2a trial of AN2728 efficacy, safety, and tolerability in adults; study 4: phase 2 trial of AN2728 efficacy and safety in adolescents. Pooled data from studies 1 and 2 included whole-body assessments excluding scalp and venous access areas; studies 3 and 4 included assessments of 2 target lesions per patient treated with AN2728 or vehicle. Pruritus severity was assessed using a 4-point rating scale from 0 (none) to 3 (severe). Efficacy assessments included change from baseline in mean±standard deviation (SD) pruritus severity scores at days 8 (initial assessment), 15, 22, and 29 (whole-body assessments) or days 15 (initial assessment), 22, and 29 (target lesions). Paired t-tests comparing change from baseline against zero were used to calculate P values. The pooled analysis of studies 1 and 2 included 57 patients. Reductions vs baseline in mean±SD pruritus severity scores during treatment with AN2728 occurred at day 8 (–1.32±0.94) and were maintained through day 29 (–1.37±0.89; P<0.001 for each). The pooled analysis of studies 3 and 4 included 67 patients. Reductions in mean ± SD pruritus severity scores during treatment with AN2728 were observed at day 15 (–1.54±0.81) and were maintained through day 29 (–1.70±0.70; P<0.001 for each). These findings provide preliminary evidence of the efficacy of AN2728 topical ointment, 2% in relieving pruritus, one of the most burdensome AD symptoms.