16820

Case of growth, cognition and development impairment in a child taking oral propranolol for infantile haemangioma

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Oral propranolol is commonly used as first-line systemic treatment of infantile haemangioma (IH), due to its good efficacy and safety profile with uncommonly reported severe side effects. Owing to propranolol's ability to cross the blood-brain-barrier and some reports of cognitive adverse effects of propranolol in adults, concern regarding the impact of propranolol on infants' development, cognition and growth has been raised. To date, no long-term adverse effects have been shown. However, uncommonly reported instances of reversible weight loss and cognition and developmental change, including decline or delay in walking, while taking propranolol do exist. We report another such case, where a 9-month-old girl started on propranolol for IH was noted to lose weight, become less active, plateau in achieving her milestones and show no interest in age-related activities, despite healthy appetite and good sleep whilst on the medication. She regained her previous level of activity, cognitive function and development within weeks of propranolol cessation. She slowly regained weight. It is unknown whether hypoglycaemia contributed to these CNS effects or what causes weight loss in such cases. Although uncommon, this case suggests monitoring of cognition and developmental changes in children whilst on propranolol for IH is needed. The possibility of such reactions and weight loss should be included in information provided to parents when starting their child on propranolol, so they can watch for any concerning changes. If necessary, atenolol and nadolol are effective alternatives for IH treatment without the ability to cause such CNS effects.

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16822

Effect of commonly antiseptics used in clinic in an artificial autologous skin model based on hyaluronic acid biomaterial

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Artificial bioengineered skin substitutes (ABSS) are the main treatment used in addition to autografts when skin injuries involve a large body surface area. An antiseptic/antibiotic treatment is necessary to prevent infections in the ABSS implant area. This study aimed to evaluate the effect of clinical antiseptics on cell viability, structural integrity and epidermal barrier function in ABSS based on hyaluronic acid during 28 days of follow-up. Keratinocytes (KT) and dermal fibroblasts (DF) were enzymatically isolated from 9-cm^2 skin biopsies (n = 3). After 4-5 weeks in culture, DF were part of dermal fibrin−hyaluronic acid stroma. KT were seeded on the surface to establish ABSS. ABSS were kept in culture 28 days. The antibiotic/antiseptic treatment were applied every 48 hours: Colistimethate sodium (1%), chlorexhidine digluconate (1%), microdacyn (100%), and prontosan (100%). Cell viability (LIVE/DEAD assay), structural integrity (histologic evaluation), and epidermal barrier function (transepidermal water loss [TEWL]; Tewameter) were evaluated (7, 14, 21, and 28 days after treatment). Cell viability percentage of ABSS treated with chlorexhidine digluconate (9.69%) were significantly lower ($P \leq$ .001%) than the other treatments at day 28: colistimethate sodium (47.34%), microdacyn (62.34%), prontosan (59.41%), and control (94.96%). Chlorexhidine digluconate and prontosan affected to epithelium integrity compared with other treatments. Epidermal barrier function was not affected after 14 days of antibiotic/antiseptic treatment. Chlorhexidine digluconate seriously affected to cell viability and epithelium integrity. It is necessary to propose new treatment protocols after implantation of ABSS in patients and evaluate them in vivo.

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16828

Behcet syndrome: Dermatologists gain knowledge and confidence in identification and treatment

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Background: A study was conducted to determine if an online continuing medical education (CME) activity could improve the clinical knowledge/competence of dermatologists in improving the quality of life among patients with Behcet syndrome (BS).

Methods: Educational design included a 30-minute online discussion among two expert faculty with synchronized slides, focused on diagnosis and treatment of common manifestations of Behcet syndrome. Educational effect was evaluated with a repeated-pairs pre- to post-assessment study design in which each individual learner acts as his/her own control. A chi-square test identified whether proportions of correct answers at pre and post were significantly different ($P < .05$ significance level). The activity launched on March 19, 2019, and data were collected through May 8, 2019.

Results: Participation in education resulted in statistically significant improvements for dermatologists (n = 95; $P < .05$). An average of 74% correctly responded to pre-assessment questions, increasing to 81% post-assessment. Significant increases were observed in several specific areas for dermatologists post-assessment including: Pathogenesis and therapeutic targets of novel therapies for, BS (11% improvement); understanding the characteristics of oral ulcers associated with, BS (15% improvement); identification of appropriate therapy for treating oral ulcers (8% improvement); more than half of dermatologists gained confidence in managing mucocutaneous manifestations of BS.

Conclusions: This study demonstrates the success of online video-based CME on improving knowledge and confidence of dermatologists in managing patients with Behçet syndrome.

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16829

Risk of major cardiovascular events with interleukin-12/23 inhibition compared with tumor necrosis factor α in patients with psoriasis: Pharmacovigilance analysis within a large Midwestern US patient population from the RADAR program

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Background: With the introduction of IL12/23 therapy, and compared with a TNF-α agents, the comorbidity risk for MACE (acute myocardial infarction, acute cerebrovascular disease, and TIA) is not yet well delineated. The aim for this study was to explore this comparison using real world data.

Methods: Data were extracted from a medical record data repository (>8 million patients; Jan 2010−Dec 2018) for 18−89-year-old adults diagnosed with psoriasis by a dermatologist (ICD-9 code 696.1; ICD-10 codes L40.0, L40.1, L40.2, L40.3, L40.4), who were exposed to ustekinumab or an a TNF-α agent (adalimumab, etanercept, infliximab, certolizumab), and who had no history of MACE (ICD 9/10:410, I21, 436, I63, 435, G45). Incidence rates (IRs) and incidence rate ratios (IRRs) were calculated.

Results: Of 1928 eligible patients (936 F), there were n = 541 (245 F) IL-12/23−exposed with an IR for MACE of 1.8/1000 person-year (95% CI 0.7-3.0) versus an IR of 2.3/1000 person-years (95% CI 1.5-3.2) for TNF-α−exposed patients: (n = 1387 [698 F]). The risk for MACE proved to be not significantly different (IRR 0.79, 95% CI 0.37-1.68).

Conclusions: Consistent with some prior reporting, these real-world data for incidence rates with MACE between TNF-α agents and ustekinumab (anti−IL-12/23) in patients with psoriasis serve to further inform clinicians about cardiovascular comorbidity and patient management.

Commercial disclosure: None identified.