Effect of supplementary patient education material on treatment adherence and satisfaction among acne patients receiving adapalene 0.1%/benzoyl peroxide 2.5% gel

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Poor adherence of patients to long-term acne treatment may lead to unnecessary treatments, increased healthcare costs and reduced quality of life. This study evaluated the effect of supplementary patient education material (SEM) on treatment adherence and satisfaction among acne patients treated with adapalene 0.1%/benzoyl peroxide 2.5% gel (AP/BPO) in primary care clinics versus: 1) standard-of-care patient education and 2) more frequent clinical visits. The study included subjects aged ≥12 years with acne, randomized into three groups to receive once-daily AP/BPO for 12 weeks: 1) SEM in addition to standard-of-care patient education with visits at baseline, weeks 3, 6 and 9; and 2) standard-of-care patient education only with visits at baseline, weeks 3, 6, 9 and 12; and 3) standard-of-care patient education only with visits at baseline, weeks 6 and 12. Assessments included a subject appreciation questionnaire, a physician questionnaire, and safety. A total of 97 subjects (mean age: 22.5 years) were enrolled. Of those, 82 subjects (84.5%) completed the study. The SEM group showed better adherence compared with more visits or AP/BPO alone (6.1%; 48.2% and 56.5%, respectively). Also, the SEM group had more subjects with >75% adherence (45%, 30.4%, and 25%), respectively). According to the subjects, the SEM was helpful to adhere to the treatment, better use the product, and better manage skin irritation. All physicians were satisfied with the SEM and 90% would consider using it in their practice. Fewer treatment-related adverse events were reported in the SEM group. SEM may improve adherence to topical treatment of acne and consequently improve efficacy, cost and quality of life in the long term.

Withdrawn

Efficacy and tolerability of biologic therapies for psoriasis: network meta-analysis

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Multiple biologic treatments are available for psoriasis but their relative efficacy and tolerability is unclear due to the limited number of head-to-head randomised clinical trials (RCTs). We conducted a systematic review to examine the efficacy and tolerability of biologic therapies for psoriasis. We searched databases for RCTs comparing etanercept, infliximab, adalimumab, ustekinumab or secukinumab (SEC) to each other or methotrexate. Pairwise random-effects meta-analyses and a network meta-analysis (NMA) were performed to derive a relative ranking of treatments. Key outcomes were: 1) Clear/nearly clear (C21) in Dermatology Life Quality Index (DLQI) and mean change in Dermatology Life Quality Index (DLQI); and 2) withdrawal due to adverse events (tolerability). Study quality, heterogeneity and inconsistency were evaluated. Outcomes were jointly ranked using hierarchical cluster analysis. Direct comparisons from 42 RCTs (19,017 participants) were included. All included biologics were efficacious compared with placebo at 3-4 months. SEC had an 86% chance of being best in terms of clear/nearly clear. UST had a 63% chance of being best in terms of mean improvement in DLQI. UST had a 38% chance of being best in terms of tolerability. In a head-to-head comparison of SEC and UST, 148 per 1000 (95% CI 44 to 233) more people would achieve C21. UST had a 38% chance of being best in terms of mean improvement in DLQI. UST had a 63% chance of being best in terms of mean change in Dermatology Life Quality Index (DLQI) (efficacy); and withdrawal due to adverse events (tolerability) is unclear due to the limited number of head-to-head randomised clinical trials (RCTs). Overall, joint rankings of efficacy/tolerability suggest SEC has the best performance at 3-4 months. The key limitation is the lack of longer-term head-to-head RCT data available, restricting our analyses to short-term outcomes. Results need to be considered alongside real-world long-term safety and effectiveness data.

Clinico-pathological and molecular characterization of autosomal recessive epidermolysis bullosa simplex due to EXPH5 (exophilin-5) mutations

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Epidermolysis bullosa simplex (EBS) is a heterogeneous disorder caused by mutations in at least 9 genes. Eight of the 9 genes have been implicated in autosomal recessive subtypes, including EXPH5 (encoding exophilin-5, a Rab27B effector protein, also known as Slac2-b). This study aimed to compare the phenotype and genetic variance among patients with EBS caused by different mutations in EXPH5. A total of 34 families with 39 affected patients of British Pakistani descent were included. Of those, 24 patients were of first degree relative (56.4%) and 15 were unrelated (38.5%). In total, 31 families (85.1%) were reported to be consanguineous. All patients were of male gender (100%) and the mean age was 12.4 years. Regarding the phenotype, 32 patients (82%) had bullous blistering with sites that included the mouth (85%); 25% had also skin blisters with sites that included the trunk, limbs, face and buttocks; and 25% had mucous membranes involvement (50%), with 5 patients (13%) having eye involvement (50%). All patients had a history of skin blistering from birth, with small crusts at the sites of previous blisters and areas of post-inflammatory hypo- and hypopigmentation mainly on the trunk, limbs, face and buttocks; and 25% had involvement of the mucous membranes. Sanger sequencing of genomic DNA demonstrated homozygosity for a new mutation, c.448T> G (p.Met1495fs*0), in exon 6 of EXPH5; all children homozygous, parent heterozygous. Based on this pedigree, and the previous reports, we conclude that this new mutation in EXPH5 is associated with generalized blistering that typically improves with age; skin pathology demonstrating keratin filament aggregation, reduced/explorin-5 immunostaining, and varying degrees of increased intracellular and extracellular vesicles; and, molecular pathology revealing bi-allelic loss-of-function mutations in EXPH5 (all in exon 6). Nevertheless, precisely how exophilin-5, a protein involved in vesicle transport, disrupts keratin filament assembly is yet to be discovered.