15026

BMS-986165, an oral selective tyrosine kinase 2 inhibitor: Evaluation of changes in laboratory parameters in response to treatment in a phase 2 trial in psoriasis

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Background: In a phase 2 trial of the oral, selective tyrosine kinase 2 (TYK2) inhibitor BMS-986165 in patients with moderate to severe plaque psoriasis, 67%-75% achieved PASI75 at wk 12 at doses ≥ 3 mg bid versus 7% with placebo ($P < .001$), with an acceptable AE profile. We investigated the effect of BMS-986165 on standard laboratory parameters, many of which become abnormal on treatment with other kinase inhibitors.

Methods: 267 patients were randomized to 1 of 5 doses of BMS-986165 or placebo for 12 wks. Mean absolute values (with associated SDs) in hematologic, hepatic, and lipid (total cholesterol, triglycerides) parameters; creatinine, creatine phosphokinase (CPK) and glucose levels; blood pressure; and weight/BMI were assessed for the 3 most effectives doses (3 mg bid, 6 mg bid, 12 mg qd) and placebo.

Results: Most laboratory parameters stayed within normal range during treatment, including hematologic (lymphocytes, neutrophils, platelets, hemoglobin), liver enzymes, creatinine, glucose, and lipid panel. CPK levels were elevated in placebo (baseline: 142.6 U/L [91.3]; wk 12: 155.5U/L [88.8]) and treatment groups (baseline: 3 mg bid: 130.0 U/L [99.6], 6 mg bid: 143.6 U/L [159.8], 12 mg qd: 143.6U/L [86.6]; wk 12: 3 mg bid: 139.7 U/L [106.2], 6 mg bid: 156.1 U/L [137.9], 12 mg qd: 194.5 U/L [357.8]). The CPK increases were asymptomatic, mostly CTCAE grade 1 or 2, and were observed in 12/44 patients (27%) who received placebo and 57/221 (26%) who received BMS-986165. There was no dose-dependence and no events resulting in discontinuation from the study.

Conclusions: No consistent differences between placebo and treated groups and no clear dose-dependence were seen in laboratory parameters investigated. Results of ongoing phase 3 studies of BMS-986165 in psoriasis will provide long-term safety and laboratory data.

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15058

The effect of baricitinib on daily and workplace activity from phase 3 trials BREEZE-AD1 and BREEZE-AD2 in adult patients with moderate to severe atopic dermatitis

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Background: Baricitinib is an oral, selective inhibitor of Janus kinase (JAK)1 and JAK2 under investigation for treatment of moderate to severe atopic dermatitis (AD). Primary results of 2 phase 3 trials were disclosed elsewhere; the objective here is to report the trials' patient-reported measures of daily and workplace activity.

Methods: In independent 16-week trials (BREEZE-AD1/BREEZE-AD2), adult patients were randomized (2:1:1:1) to placebo (AD1/AD2: n = 249/244, respectively), baricitinib 1-mg (127/125), 2-mg (123/123), or 4-mg daily (125/123). Work Productivity and Activity Impairment Questionnaire-AD (WPAI-AD) measured percentage of daily activity impairment in the overall population and percentages of work-time missed (absenteeism), work-time impaired (presenteeism), and work productivity loss (work impairment) among employed patients. Least-squares mean change from baseline was compared for each baricitinib dose versus placebo using mixed models for repeated measures.

Results: Baseline characteristics were similar between studies. In the overall population, baricitinib resulted in less impaired daily activities versus placebo at week 1 ($P \leq .001$ for 2- and 4-mg, both studies), week 4 ($P \leq .001$ for 2- and 4-mg, both studies) and at week 16 (AD1 $P \leq .001$, 4-mg; AD2 $P \leq .001$, 2- and 4-mg). The percentages of patients employed at baseline were 70% in AD1 and 66% in AD2. Among employed patients at week 16, no differences in absenteeism were observed; baricitinib-treated patients reported significantly reduced presenteeism ($P \leq .05$, 2-mg and 4-mg, both studies) and less work productivity impairment (AD1, $P \leq .01$, 4-mg) compared with placebo.

Conclusions: Baricitinib therapy demonstrated rapid and sustained improvements in work and daily activities among AD patients.

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15078

Neurodevelopment in patients with atopic dermatitis of a third-level hospital in Mexico

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Background: Atopic dermatitis (AD) has been described as a systemic disease, due to its manifestations and comorbidities, as developmental disorders, but the level of neurodevelopment of children with AD has been poorly described, with inconclusive results and there isn't a exclusive study for AD.

Objective: To describe the level of neurodevelopment in patients with AD according the severity and impact on quality of life.

Methods: This was a descriptive, cross-sectional, and prospective study. SCORAD index, CDLQI or IDQoL and the Battelle Development Inventory-2 (IDB-2), was done to evaluate severity of AD, life of quality and neurodevelopment, respectively.

Results: 36 patients were included, 63.9% (23) male, 36.1% (13) female, mean age 44.19 ± 23.4 months. 56% (19) with mild DA, 36% (13) moderate DA and 11% (4) severe DA. Two patients showed a global level of neurodevelopment classified as delay and 1 as significant delay. Patients with severe AD had normal neurodevelopmental and even, in some domains, reached advanced and accelerated levels ($P > .05$). Quality of life was not related to the severity of AD or the level of neurodevelopment.

Conclusions: The relationship between AD and neurodevelopment persists unknown. The results were obtained from just one observation. Variables were measured simultaneously, so there is temporary ambiguity that makes it difficult to establish a possible cause-effect relationship. The level of neurodevelopment may be different overtime dependig the diseaseś cronicity. Future studies of neurodevelopment and AD should be long-term longitudinal design to provide stronger associations between them.

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15102

Not so Sweet: A confounding case of histiocytoid sweets in a leukemic patient

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A 37-year-old Caucasian man with history of chronic myeloid leukemia (CML), not in remission, and Sweet syndrome (SS) presented for evaluation of a rash present for 1 month which had worsened in the prevceding 2 weeks. At the onset of rash his oncologist was concerned for blast crisis due to rapidly increasing WBC, and a biopsy was taken which was concerning for leukemia cutis (LC). At the time of our exam, the patient was afebrile with elevated WBC and otherwise unremarkable labs. He had countless indurated erythematous crusted papules and pustules, some with necrosis, coalescing into plaques on the face, scalp, upper and lower cutaneous lips, upper back, chest, and bilateral upper extremities. An infectious work-up was negative. Flow cytometry of the patient's peripheral blood was negative for blast cells. Bone marrow biopsy showed <1% blast cells. Two H&E biopsies showed dense sheets of left shifted granulocytes in the superficial dermis. The granulocytes stained positively for myeloperoxidase (MPO) and there were CD163-positive histiocytes in the background. No obvious blasts were identified on H&E, and there was no increase in CD34-positive cells. The biopsy originally concerning for LC was reviewed, and given the cumulative clinical and laboratory findings, a diagnosis of histiocytoid SS was favored over LC. The patient was subsequently treated with prednisone and dapsone with remarkable improvement both in hospital, and several weeks later in clinic. This case demonstrates the difficulty in differentiating HSS from LC and the need for multispecialty coordination and clinical follow-up.

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