Efficacy of tapinarof cream by body region in subjects with plaque psoriasis in a phase 2b randomized controlled study

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Tapinarof is a therapeutic aryl hydrocarbon receptor modulating agent (TAMA) in development for treatment of psoriasis and atopic dermatitis. In a phase 2b study, Physician Global Assessment (PGA) and Psoriasis Area and Severity Index (PASI) responses at Week 12 were significantly higher in all tapinarof groups vs vehicle. Higher responses in tapinarof groups were maintained for 4 weeks post-treatment vs vehicle.[1] This *post-hoc* analysis evaluated mean change in PASI from baseline by body region.

Overall (N=175), mean baseline PASI score was 8.8 and most subjects (80%) had a PGA score of 3 (moderate). Mean PASI improvements at Week 12 were significantly greater in tapinarof 1% twice-daily (BID), 1% once-daily (QD), 0.5% BID, and 0.5% QD groups vs vehicle BID and QD, overall: –8.70, –6.62, –6.30, and –5.41 vs –2.77 and –1.54, respectively (all $P<0.001$); in the upper extremities: –9.65, –9.05, –8.70, and –6.04 vs –4.88 and –1.61 (all $P<0.05$); and lower extremities: –8.74, –8.19, –7.16, and –6.33 vs –2.47 and –2.0 (all $P<0.001$). In the trunk and head/neck, PASI improvements were significantly greater in all tapinarof groups vs vehicle except the 0.5% BID group: –11.94, –9.13, –9.0, and –8.25 vs –4.08 and –1.85 ($P<0.01$); and –9.0, –7.40, –5.0, and –9.0 vs –1.75 and –2.50 ($P<0.05$), respectively.
Tapinarof cream was generally well tolerated; most adverse events were mild or moderate.

Tapinarof cream demonstrated consistent efficacy across body regions as measured by PASI and was generally well tolerated. A phase 3 study of tapinarof cream 1% QD in psoriasis is ongoing (NCT03956355).

1. Robbins K et al. *J Am Acad Dermatol.* 2019;80:714–721.