MONTREAL — Clobetasol propionate and tacrolimus ointments offer similar efficacy for vitiligo, according to a prospective, randomized, double-blind clinical trial.

Both topicals were superior to placebo in this study of 100 pediatric patients. In addition, facial vitiligo lesions responded quicker than did nonfacial ones to either active treatment in the 6-month study. Dr. Nhung Ho said at the annual conference of the Canadian Dermatology Association.

Fifty boys and 50 girls were randomized to one of three groups.

Thirty-three applied clobetasol propionate 0.05% ointment (available as a generic) for 2 months, then placebo ointment for 2 months, followed by clobetasol again for 2 months.

The on-and-off cycle design was used to minimize safety concerns, said Dr. Ho, a pediatric dermatologist at the Hospital for Sick Children in Toronto.

The second group, of 34 patients, applied tacrolimus 0.1% ointment (Protopic, Astellas Pharma US Inc.) for 6 months, and the remaining 33 patients applied placebo for 6 months.

Participants were aged 2-16 years and vitiligo affected less than 20% of their body surface area at baseline. They were enrolled at either a dermatology outpatient clinic or a private office between June 2005 and December 2007. A research grant from Astellas Pharmaceuticals funded the study.

Three assessors reviewed standardized photos at baseline, 2, 4, and 6 months.

Successful response was defined as more than 50% repigmentation of the vitiligo lesions.

There were 45 participants with facial vitiligo and 55 others with nonfacial lesions.

**Risk of Serious Infections**

Infections, including serious infections leading to hospitalization or death, have been observed in patients treated with ENBREL. Infections have included bacterial sepsis and tuberculosis. Patients should be educated about the symptoms of infection and closely monitored for signs and symptoms of infection during and after treatment with ENBREL. Patients who develop an infection should be evaluated for appropriate antimicrobial treatment and, in patients who develop a serious infection, ENBREL should be discontinued.

Tuberculosis (frequently disseminated or extrapulmonary at clinical presentation) has been observed in patients receiving TNF-blocking agents, including ENBREL. Tuberculosis may be due to reactivation of latent tuberculosis infection or to new infection. Data from clinical trials and preclinical studies suggest that the risk of reactivation of latent tuberculosis infection is lower with ENBREL than with TNF-blocking monoclonal antibodies. Nonetheless, postmarketing cases of tuberculosis reactivation have been reported for TNF blockers, including ENBREL. Patients should be evaluated for tuberculosis risk factors and be tested for latent tuberculosis infection prior to initiating ENBREL and during treatment. Treatment of latent tuberculosis infection should be initiated prior to therapy with ENBREL. Treatment of latent tuberculosis in patients with a reactive tuberculin test reduces the risk of tuberculosis reactivation in patients receiving TNF blockers. Some patients who tested negative for latent tuberculosis prior to receiving ENBREL have developed active tuberculosis. Physicians should monitor patients receiving ENBREL for signs and symptoms of active tuberculosis, including patients who tested negative for latent tuberculosis infection.

Many of these serious infections occurred in patients predisposed to infection because of concomitant immunosuppressive therapy and/or their underlying disease. Do not start ENBREL in the presence of sepsis, active infections (including chronic or localized), or allergy to ENBREL or its components. Use caution in patients predisposed to infection, such as those with advanced or poorly controlled diabetes.

**Hematologic Events**

In clinical trials of all TNF inhibitors, including ENBREL, there have been reports of rare cases of new onset or exacerbation of CNS demyelinating disorders (some presenting with mental status changes and some associated with permanent disability). Transverse myelitis, optic neuritis, multiple sclerosis, and cases of new onset or exacerbation of seizure disorders have been observed in association with ENBREL therapy. The causal relationship to ENBREL therapy remains unclear. Exercise caution when considering ENBREL for patients with these disorders.

**Neurologic Events**

Rare cases of pancytopenia, including aplastic anemia, some fatal, have been reported. The causal relationship to ENBREL therapy is unclear. Exercise caution in patients who have a previous history of significant hematologic abnormalities. Advise patients to seek immediate medical attention if they develop signs or symptoms of blood dyscrasias or infection. Consider discontinuing ENBREL if significant hematologic abnormalities are confirmed.

**Malignancies**

In clinical trials of all TNF inhibitors, more cases of lymphoma were seen compared to control patients. The risk of lymphoma may be up to several-fold higher in RA and psoriasis patients; the role of TNF inhibitors in the development of malignancies is unknown. In clinical trials, the incidence of malignancies other than lymphoma has not increased with exposure to ENBREL and is similar to what would be expected in the general population.

**Hepatitis B Reactivation**

TNF inhibitors, including ENBREL, have been associated with reactivation of hepatitis B virus (HBV) in chronic carriers of this virus. The majority of these reports occurred in patients on concomitant immunosuppressive agents, which may also contribute to HBV reactivation. Prescribers should exercise caution in prescribing TNF blockers for patients identified as carriers of HBV.

**Adverse Events**

The most commonly reported adverse events in RA clinical trials were injection site reaction, infection, and headache. In clinical trials of all other adult indications, adverse events were similar to those reported in RA clinical trials.

Please see brief summary of Prescribing Information on adjacent pages.
In the facial group, 58% responded to clobetasol propionate and 58% responded to tacrolimus. This effect was lower for those with facial lesions: Thirty-nine percent re- sponded to clobetasol propionate and 23% to tacrolimus, Dr. Ho said.

Both active treatments were signifi- cantly better than placebo. A total of 24% of the placebo patients—7 of 29 who completed the study—responded, 5 responded partially and 2 responded with greater than 50% repigmentation, the pe- diatric dermatologist said.

There were no significant adverse events reported. Some patients experienced tran- sient erythema but no atrophy occurred. Possible limitations of the study include its short duration and a “handful of patients,” Dr. Ho noted.

Vitiligo affects an estimated 1%–4% of the general population. It presents in children of all races, with predominance in light-skinned children, and approxi- mately 50% of lesions develop before age 20 years. The pathogenesis of childhood vitiligo is still unknown, the pediatric dermatolo- gist noted.

Evidence supports the use of topical therapies, including ENBREL® monotherapy and local- ized pediatric vitiligo lesions. For example, mod- erate-to-high potency topical corticos- teroids caused repigmentation of vitiligo lesions of more than 24% in 70 children (64% controlled) treated in one retrospective study (J. Am. Acad. Dermatol. 2007;56:236-41).

Another 24% (17 children) showed no change in their lesions, and 11% (8 chil- dren) had their vitiligo worsen.

Systemic absorption (29% of partici- pants had abnormally high cortisol levels) was a caveat in this study.

In another retrospective study of 57 pe- diatric patients, tacrolimus ointment caused adverse effects in at least a partial response in 80% of facial vitiligo lesions (J. Am. Acad. Dermatol. 2004;51:760-66).

Response to the topical tacrolimus oint- ment was lower for vitiligo lesions on the...

Clobetasol propionate and tacrolimus both produced complete repigmentation in 9% of patients treated with clobetasol propionate and 7.5% of patients treated with tacrolimus, respectively.

PARAVERSE assessments found no sig- nificant adverse events with both treatments.

Clobetasol propionate and tacrolimus produced similar repigmentation rates in children with vitiligo (52% and 55%, respectively).

The safety and efficacy of ENBREL® in pediatric patients with plaque psoriasis have not been studied. Postmarketing experience has been limited to a single case of a 9-year-old girl who experienced a lupus-like syndrome following treatment with ENBREL®.

In conclusion, enbrel® therapy is safe and effective in pediatric patients with plaque psoriasis, the authors noted.

No patients had undergone previous systemic therapy for psoriasis.

Another study showed that 58% of patients treated with clobetasol propionate and 58% of patients treated with tacrolimus experienced complete repigmentation.

Additional studies have been conducted with ENBREL®. However, it is unknown that the pharmacokinetics of ENBREL® was sustained by concomitant medications in children with vitiligo.

Patients treated with ENBREL® had more than 50% repigmentation, the pe- diatric dermatologist noted.

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