

The Effects of Antihistamines on Injection-Site Reactions

Pardo G, Boutwell C, Conner J, et al. Effect of oral antihistamine on local injection site reactions with self-administered glatiramer acetate. *J Neurosci Nurs.* 2010;42:40-46.

Local injection-site reactions (LISRs) commonly occur after subcutaneous injection of relapsing-remitting multiple sclerosis (RRMS) medications, and are not only bothersome to patients but may contribute to nonadherence to therapy, especially in earlier stages of treatment. Anecdotal reports have suggested that pretreatment with an oral antihistamine

may alleviate LISRs (histamine release is believed to play a key role in cutaneous wheal-and-flare responses and may mitigate LISRs), but this effect has not been evaluated in a clinical trial setting. In a placebo-controlled study, Pardo et al report finding no significant benefit from a carefully monitored program of pretreatment with the antihista-

mine cetirizine hydrochloride (Zyrtec®, 10 mg) by patients using glatiramer acetate.

The 83 patients with RRMS in this randomized parallel-group study had recently begun self-injecting glatiramer acetate subcutaneously. Using clinic and patient-diary data, the investigators compared LISRs during a 2-week baseline period with a subsequent 2-week period of pretreatment with cetirizine or placebo. A small difference in LISRs between cetirizine and placebo was seen immediately after injection, and antihistamine-treated patients showed significantly fewer LISRs between the baseline and treatment periods at each of several postinjection time intervals, unlike patients on placebo. However, cetirizine use made no significant difference on the primary endpoint: the number of LISRs at 5 minutes postinjection, when compared to placebo. Nor did cetirizine affect the type of LISRs (redness, warmth to the touch, pain, raised area around injection site, etc) reported at any time point. The antihistamine was well tolerated, but failed to demonstrate a benefit as a strategy to reduce LISRs to glatiramer acetate therapy. ■



CLINICAL INSIGHTS

There are a number of ways to help prevent and/or reduce the severity of injection-site reactions common to the disease-modifying medications administered subcutaneously (glatiramer acetate, interferon β -1a, and interferon β -1b).

- ✎ *Instruct the patient to take the dose out of the refrigerator at least 30 minutes prior to injection to allow it to warm to room temperature.*
- ✎ *Encourage the use of an autoinjector that is designed for the specific medication.*
- ✎ *Alcohol used to clean the injection site should be allowed to dry completely before injection.*
- ✎ *Teach the patient to rotate injection sites. The areas that can be used include the abdomen, thighs, back of arms, and fleshy areas of the upper hip.*
- ✎ *Avoid icing the skin before or after injection since this may prevent the medication from being absorbed by the capillaries into the body.*
- ✎ *Encourage timing injections so that they follow showers/bathing. Vasodilation should allow the medication to be drawn away from the site, thereby reducing the chance of irritation to the area.*

*This summary was reviewed by
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