Travel Immunizations in Patients on Biologics

Live vaccinations could potentially reactivate in the setting of a suppressed immune system.

BY RICHARD HYER

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CHICAGO — The patient on biologic therapy who must travel and requires immunization with a live attenuated virus or bacteria should be immunized before beginning biologic therapy, according to a case report presented to a symposium that was sponsored by the American College of Rheumatology.

"Think hard about the patient's life before you put them on biologic therapy, and immunize before you give the medications," advised Dr. Clifton O. Bingham, who is director of the rheumatology clinics at Johns Hopkins University, Baltimore. However, he acknowledged that this would not always be possible.

The immunomodulators etanercept and methotrexate could be withheld for at least a period of 1 month prior to administering yellow fever vaccine.

The case was a 35-year-old woman with psoriatic arthritis whose work required her to travel to Burkina Faso, a small, landlocked country in West Africa, where yellow fever is endemic. The patient's skin and articular disease was well controlled with etanercept and methotrexate.

As a practical matter, Dr. Bingham said that the immunomodulators etanercept and methotrexate could be withheld for at least a period of 1 month, and then the patient could be administered yellow fever vaccine. He advised waiting 2-3 weeks before restarting the medication.

"The disease may flare during that period of time, so that's the risk you take," he said.

If the patient was required to travel to the infected area with only 2 weeks' notice, Dr. Bingham advised providing a letter of medical contraindication to yellow fever vaccination.

"That should allow her to enter the country, but you tell her to be really careful." When a patient is on biological therapy, he said it is important to understand which live vaccinations could potentially reactivate in the setting of immunosuppression.

Vaccines that contain live attenuated viruses or bacteria include varicella; intranasal influenza/H1N1; measles, mumps, and rubella; yellow fever; oral polio; oral typhoid; vaccinia (smallpox); BCG; and rotavirus.

Disseminated disease has been reported in immunocompromised patients who were immunized with live-virus vaccines. Live viral dissemination has occurred in patients during chemotherapy, and there have been cases of infection in patients receiving immunosuppression for organ transplantation. Live virus dissemination has also been reported in patients with HIV infection. (J. Infect. Dis. 2008;197 [Suppl 2]; Clin. Infect. Dis. 2009;49:1550-6; AIDS Rev. 2007;9:173-87). "So, the recommendation is, with people who are on biologics and people who are immunosuppressed, they should not receive these live vaccinations," Dr. Bingham said.

Up-to-date vaccine information is available online from the Centers for Disease Control and Prevention (www.cdc.gov/vaccines/pubs/vis/default.htm).

An audience member asked, "Do you think that in some cases it may be a better choice to subject somebody to the risk of an attenuated organism, as opposed to the risk of wild-type disease in an area where the disease may be highly endemic?"

Dr. Bingham said, "The risk of developing yellow fever is about 50 per 100,000 in western Africa, and about 10 per 100,000 in Central and South America. So it is a low risk.

"But if you delve a little deeper into that information, you find out that many of those patients die. It's potentially a fatal disease. So you do have to balance the risk." ■

Disclosures: *Dr. Bingham disclosed financial relationships with Abbott, Amgen, Bristol-Myers Squibb, Centocor, Cypress Bioscience, Genentech, Merck, Novartis, Osiris Therapeutics, Procter & Gamble, Roche, Sonosite, Targeted Genetics, UCB, and Wyeth.*

VERBATIM

'[A]ll the orthopedic surgeons I know refuse to do the surgery for very obese patients. In my practice, such patients often choose bariatric surgery rather than dieting before they have their knees replaced.'

Dr. Larry Greenbaum on how uncommon it is for very obese patients with knee OA to lose weight through diet and exercise, page 61