

Richard D. Sanders, MD, on

## Simple face-hand test helps to diagnose schizophrenia

For psychiatrists who often cannot find time to do standard neurologic examinations, a 2-minute face-hand test (FHT) can quickly help distinguish primary (idiopathic) from secondary (organic) psychiatric disorders and schizophrenia from other psychotic disorders.

FHT results are:

- frequently and markedly abnormal in dementia and mental retardation
- less frequently and less severely abnormal in (though still indicative of) schizophrenia
- rarely abnormal in other psychiatric patients.

The FHT is an extension of the (symmetric) double simultaneous stimulation test method, in which clinicians routinely apply light simultaneous touches to the same location bilaterally (both hands, both cheeks) to screen for touch sensation deficits. The FHT merely extends this to incorporate asymmetric double simultaneous stimuli (one hand, one cheek). Both approaches are more sensitive than applying single stimuli.

### How the test is performed

- I tell the patient, "I want to test your sense of touch. While your eyes are closed, I'm going to touch one or the other hand, one or the other side of your face, or some combination. All you need to do is tell me where you felt touched." Specific instructions can affect the performance of this test, so I stick to this script.
- I then *lightly* and *briefly* touch the left hand and right cheek as simultaneously as possible, then wait for the patient to clearly indicate where any touch was felt. If only the face stimulus is reported, I ask "Anywhere else?" I only use this prompt once, after the first trial. I then touch the right hand and left cheek, the left hand and left cheek, the right hand and right cheek, both hands, and both cheeks.
- If the patient does not report touches to the hand in at least three of the first four asymmetric trials, I contin-

Dr. Sanders is a general psychiatrist with the Dayton VA Medical Center and Wright-Patterson Medical Center, Dayton, OH.

ue after the two symmetric trials with four more asymmetric trials (one of each face-hand combination).

- I count failure to correctly localize any touch as an error. Neglect ("extinction") of the hand stimulus when the face is also

being touched accounts for most errors, although various other errors can occur. Once patients begin to perceive the hand stimulus, they rarely make additional errors.

Experience with the FHT improves performance, so repeated testing may obscure the results. Specific instructions given to the patient can also affect the results. Emphasizing dual stimuli (e.g., "I'm going to be touching you on the face and on the hand") reduces both sensitivity and the chance for error. Not mentioning dual stimuli (e.g., "Tell me where you feel a touch") increases the chance for error and reduces specificity.

Using the FHT as described, I've found that about 20% of patients with first-episode schizophrenia extinguish at least one hand stimulus (usually on the first trial), but first-episode patients with other idiopathic psychotic disorders almost never make errors.

In a separate sample taken with a different testing approach, patients with schizophrenia had more hand extinctions than did those with other psychiatric disorders.<sup>1</sup> I feel a positive FHT supports a diagnosis of schizophrenia in a cognitively intact patient with psychosis.

Patients with significant cognitive impairment (e.g., dementia, delirium, or mental retardation) typically extinguish several hand stimuli; continuing to extinguish hand stimuli even after correctly completing the test's symmetric portion suggests a cognitive disorder. Persistent neglect of one side, particularly during *symmetric* double-simultaneous stimulation, also indicates localized sensory disturbance.

### Reference

1. Sanders RD, Keshavan MS, Goldstein G. The face-hand test in neuropsychiatry. *J Neuropsychiatry Clin Neurosci* 2001;13:135.