

Family Docs Show Depression Prowess

In the last decade, psychiatric researchers have reported that primary care physicians fail to detect depression in about two-thirds of their patients grappling with various forms of the disorder. Prodded by this alarming situation, the federal Agency for Health Care Policy and Research issued guidelines in 1993 advising family physicians to treat all cases of major depression aggressively, with antidepressant drugs and psychiatric referrals.

A new study now suggests that family physicians are in fact quite sensitive to their patients' emotional distress but make no formal diagnoses for a great many whose mild depression responds best to supportive counseling and careful monitoring. Antidepressants and psychotherapy may not be the best option for

many depressed people seen by primary care physicians, conclude researchers at the University of Michigan Medical Center in Ann Arbor.

"Family physicians have been accused of not treating depression enough, but in fact they're very good at sorting out cases of severe major depression from milder versions of major depression that don't respond as well to antidepressants," asserts study coauthor Thomas L. Schwenk, a primary care physician. "There's a huge reservoir of mildly depressed patients for whom appropriate treatment is not clear."

Schwenk and his colleagues, psychologists James C. Coyne and Suzanne Fehner-Bates, directed screening interviews of 1,580 patients recruited from the practices of 50 family physicians in a rural and a sub-

urban area of southeastern Michigan.

Each participant rated his or her emotional condition on standardized questionnaires and was rated by his or her own physician. Within 2 weeks of the initial screening, about one-quarter of the volunteers granted more extensive interviews so that researchers could confirm their psychiatric status.

Family physicians detected only 40 of 143 patients confirmed as suffering from a depressive disorder in follow-up interviews. But most instances of undetected depression involved mild symptoms that did not prevent the affected person from working or interacting with others. The researchers classified these cases as mild because the patients exhibited the minimum number of symptoms required for that diagnosis.

In contrast, physicians correctly identified three-quarters of those suffering from severe major depression, which includes several more symptoms than the mild form and usually derails daily activities. These patients often reported lack of energy as a major part of their depression, as well as the presence of anxiety or phobias.

More than half of those with undetected depression had received mental health care in the past. Confirmation of this finding may undermine the view that most depressed patients in primary care never obtain appropriate treatment, contend the Michigan researchers, whose findings appeared this week in the *JANUARY GENERAL HOSPITAL PSYCHIATRY*.

Treatment studies find that placebo, or inactive, pills and supportive visits help patients with the mild form of major depression as much as short-term psychotherapy or antidepressants do, notes Wayne Katon, a psychiatrist at the University of Washington Medical School in Seattle. The effectiveness of low doses of antidepressants in such cases, long advocated by primary care physicians, remains unclear, Katon adds.

Last year, the official psychiatric definition of major depression added the requirement that symptoms produce "significant distress or impairment" at work and in social relations. Family physicians have taken this approach all along and have been unjustly branded as neglectful of many depressed patients, Schwenk argues.

"Primary care physicians do a lot of supportive counseling with mildly depressed patients that doesn't show up in the charts," he holds. "My fantasy is that the manual of psychiatric diagnoses will eventually include criteria on the functional impact of each disorder in patients' lives." — B. Bower

Infrared telescope eyes new eruption on Io

Time on big telescopes is precious, and astronomers rarely get more than a few nights of observing. But as part of the Jason project (SN: 11/12/94, p.307), which features live telecasts to schoolchildren, John R. Spencer got the chance to view Jupiter's moon Io for 2 weeks.

His team's images, taken at NASA's Infrared Telescope Facility atop Hawaii's Mauna Kea, did more than wow several hundred thousand students. They revealed a huge, freshly erupting volcano on the frigid moon. The Voyager 1 spacecraft detected volcanism on Io in 1979, and the moon remains the only place in the solar system, other than Earth, known to have volcanic activity.

The finding, Spencer says, marks the first time anyone has obtained an image sharp enough to show the location of this big a volcano on Io. The image also provides the first real-time detection of a large Io eruption, allowing other astronomers to track the

ephemeral feature.

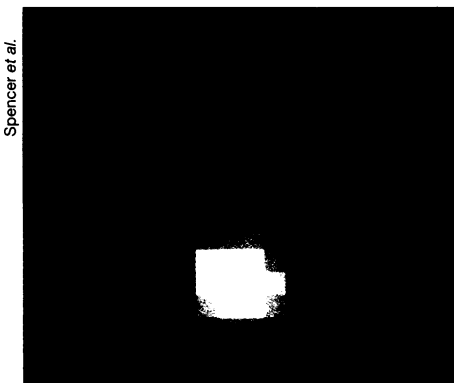
Spencer, of Lowell Observatory in Flagstaff, Ariz., Jane E. B. Spencer, and David Griep of the Infrared Telescope Facility report their discovery in a March 2 circular of the International Astronomical Union. On that date, Spencer told SCIENCE NEWS, the new feature glowed as brightly as the entire disk of Io at an infrared wavelength of 4.8 microns.

"This is the brightest hot spot I've personally seen in 5 years of observing Io," Spencer says.

His latest calculations place the spot at about 45° south of Io's equator and 95° west longitude, just inside the face that Io always keeps turned away from Jupiter. Astronomers can more accurately gauge the position of hot spots on the Jupiter-facing side of Io because these spots stand out brightly when the moon slips into the giant planet's shadow. But the position of the new spot offers one possible advantage — the Galileo craft may obtain close-up images during the craft's December flyby of Io.

Paul D. Feldman of Johns Hopkins University in Baltimore, an investigator with the Hopkins Ultraviolet Telescope (HUT) on the Astro 2 Observatory, learned of Io's eruption soon after Astro's launch (SN: 3/4/95, p.133).

When the spot next came into view, 2 days later, HUT obtained simultaneous spectra of the moon's atmosphere and its torus, the ring of charged particles surrounding Io's orbit. These and subsequent spectra should reveal whether the eruption spewed sulfur and oxygen into Io's atmosphere and if it added ions to the torus. — R. Cowen



False-color infrared image of Io shows new hot spot (white area).

Spencer et al.