New report offers antipsychotic guidelines

Lawsuits filed by patients who develop a severe movement disorder during antipsychotic-drug treatment greatly increased over the past decade. A specially convened American Psychiatric Association (APA) task force has just completed a report stressing clinical vigilance and caution as keys to preventing and treating tardive dyskinesia, the potentially debilitating disorder that can accompany use of neuroleptics, a class of drugs that often quell psychotic symptoms.

Physicians prescribe neuroleptics for as many as 3 million people in the United States each year. Many of their patients suffer from schizophrenia, although a substantial minority includes individuals with mental retardation, severe depression, organic brain disorders and autism. Neuroleptics often quell aggressive and assaultive behavior as well.

No effective treatment currently exists for the tardive dyskinesia that often develops after several months of neuroleptic treatment. Rapid, involuntary twitching or jerking of the mouth, lips, tongue, limbs or trunk characterizes this condition, whose symptoms often appear most clearly when drug use stops. Neuroleptic drugs may also trigger tardive dystonia, a slower twisting and writhing of the head, neck and other body parts.

Lawyers involved in litigation over the development of tardive dyskinesia look forward to seeing the new psychiatric task force report, slated for fall publication by the American Psychiatric Press in Washington, D.C. Most doubt, however, that the report's recommendations will adequately protect patients from developing tardive dyskinesia or provide an enforceable standard of practice for prescribing the drugs that are responsible, says Irwin Birnbaum. The Syracuse, N.Y.-based lawyer co-chairs the Association of Trial Lawyers of America tardive-dyskinesia-litigation group.

"Physicians are caught in a dilemma," says APA task force chairman John M. Kane of Long Island Jewish Medical Center in Glen Oaks, N.Y. "There's a high risk of relapse among schizophrenic patients treated with neuroleptics and then taken off medication, but there's the risk of tardive dyskinesia for those who continue to take the drugs."

SCIENCE NEWS obtained a summary of APA's new tardive-dyskinesia recommendations, contained in a nearly 400-page follow-up to a 1980 task force report on the same subject. The new report notes that roughly 20 percent of patients taking neuroleptics develop some tardive dyskinesia, with about 10 percent of those suffering moderate to severe symptoms. Among prolonged users of the drugs, tardive dyskinesia incidence rises about 4 percent annually, according to an ongoing study directed by Kane.

Psychiatrists should inform neuroleptic-treated patients and their families about the risk of tardive dyskinesia "as soon as clinically feasible," and look for early signs of the disorder every three to six months, the report states. Where symptoms occur, and clinicians have ruled out non-neuroleptic causes, the report recommends that physicians discuss benefits and risks of further drug use with patients — and, if necessary, their families — to gain consent for continuing or halting drug treatment. And at every step in the process, the task force urges psychiatrists to write down their communications with patients and families, "at least in outline form."

Reduced doses or intermittent neuroleptic use may also lessen tardive dyskinesia (TD) symptoms, the report says, but researchers have yet to identify which patients respond to this best. Where symptoms worsen, the report suggests that physicians consider prescribing another neuroleptic recently approved for use in this country. Called clozapine, this drug poses little tardive dyskinesia risk, although about 1 percent of patients treated with it develop a potentially fatal immune disorder. Though psychiatrists have touted clozapine's benefits for schizophrenia sufferers who do not improve on other neuroleptics, the drug remains too expensive for many of the patients who need it most (SN: 5/26/90, p.334).

"If physicians follow these recommendations, there will be less TD, but the task force report doesn't go far enough," Birnbaum charges. Clinicians should also explore "drug holidays" for patients to see if tardive dyskinesia has developed and curtail chronic neuroleptic use, he argues. Moreover, drug firms should train psychiatrists in neuroleptic use and include inserts in all prescriptions warning patients that neuroleptics may cause a potentially irreversible neurological disorder, he asserts.

Kane opposes neuroleptic warning labels, emphasizing instead the need for consistent communication between clinicians and patients. "Neuroleptic benefits outweigh the risks in most instances," he contends. *— B. Bower*

Better assay for pesticides tainting food

Because the Food and Drug Administration relies on outdated technology to test food for dangerous pesticide residues, its routine screening assays can detect only 40 percent of all U.S. pesticides in use today. But a new test may one day help increase FDA's odds of catching foods harboring some of the most toxic residues. The experimental assay already picks up most pesticides suspected of causing cancer.

Twenty-eight of the more than 300 pesticides currently approved for use on U.S. crops have been formally designated as suspected carcinogens. Gregory C. Mattern and colleagues at Rutgers University in New Brunswick, N.J., now report that an "ion trap" mass spectrometer can simultaneously detect minute amounts of up to 17 of these (in any of the nine common crops they tested) — and a host of other pesticides as well.

Because the pesticides Mattern's team focused on are so varied in their chemical composition, the FDA now needs more than seven different chromatographic tests to accurately identify them, the researchers note.

Ion-trap technology is the "best currently available method to detect as many pesticides as possible," Mattern says. In fact, he suspects ion-trap detectors can disclose trace residues of "just about all" U.S.-approved pesticides.

Mattern's team paired a gas chromatograph with an ion-trap mass spectrometer to create their pesticide residue detector. The gas chromatograph breaks down a sample of the food being tested into its chemical constituents. Then the ion-trap detector displays the spectra of any pesticides present. The combination is so sensitive that it can detect pesticide traces as low as 50 parts per billion of any of the 17 suspected carcinogens they studied, the researchers report in the April JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY.

Three more of the 28 suspected carcinogens could be measured just as accurately by a liquid chromatograph paired with a standard mass spectrometer, the researchers report. The gas chromatograph misses these three because heat in its chamber breaks the pesticides apart, explains Mattern, a chemist now at Mobay Corp. in Stilwell, Kan.

A 1988 report by the congressional Office of Technology Assessment (OTA) identified a widening gap between the number of pesticides that farmers use and the number of pesticides the FDA can monitor. OTA also leveled strong criticism at FDA for ignoring new technologies that could narrow that gap.

Several regional FDA laboratories are evaluating ion-trap detectors, says Marion G. Clower Jr. at FDA's Center for Food Safety and Applied Nutrition in Washington, D.C. Whether FDA will ultimately adopt this new method depends on how well ion-trap detectors function in the field and how broad a range of pesticides they can detect, he says.

— T. Walker