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NON-F.OOD THINGS

Ped Med: ADHD treatments then and now

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SAN FRANCISCO, March 29, 2006 (UPI) - The current reliance on drugs as a preferred treatment for childhood behavioral problems has its roots in an accident waiting to happen more than half a century ago.

On that day in 1937, a young psychiatrist named Dr. Charles Bradley, just five years out of his residency, noted a "spectacular change in behavior" in 14 of 30 children given Benzedrine for a week to ease headaches suffered from a painful and now obsolete medical procedure.

The chance discovery was the first clinical observation of the effect of stimulant medication on hyperactive children. It would alter the course of pediatric behavioral treatment, which at the time centered on talk therapy. The drug proved no analgesic for the children who, as part of their evaluation, had the cerebrospinal fluid drained from their brain and replaced with air for a clearer X-ray picture. However, in an unexpected turn, for some of the youngsters, it became the "arithmetic pill" that helped them settle into their schoolwork.

A quarter of a century would pass before anyone attempted to replicate the observations made by Bradley at the nation's first neuropsychiatric hospital for children, the Emma Pendleton Bradley Home -- now Bradley Hospital -- in East Providence, R.I. It would be another 25 years before stimulants took their place as a staple of treatments for attention-deficit/hyperactivity disorder.

Today, from among a multitude of options -- from numerous medications to behavior-changing strategies to educational approaches to combination therapies -- they are what the doctor orders most often.

Speedily producing dramatic effects, stimulants like Ritalin, Adderall and Concerta are the professionals' No. 1 choice for the estimated 2.5 million ADHD-diagnosed children managed with medication.

Recommended as a front-line drug treatment by such medical powerhouses as the American Academy of Pediatrics, psychostimulants nevertheless sport a Jekyll and Hyde persona.

On the one hand, studies attest to their ability to sharpen concentration and focus and dull impulsivity and rashness in 60 percent to 80 percent of children diagnosed with ADHD.

On the other, evidence exists of the devastation wrought by misuse of the potent narcotics, which the Drug Enforcement Agency classifies, along with opium and cocaine, as dangerously addictive and highly prone to abuse Schedule II controlled substances.

Even with appropriate application, the pharmaceuticals can raise the risks for a cascade of costly consequences, from stunted growth in some children who lose their appetite to psychosis in those whose existing mental illness worsens with treatment.

Earlier this month a Food and Drug Administration advisory committee was told of a small number of children suffering hallucinations of snakes, worms, bugs and other creepy crawlies after taking the drugs.

A preliminary FDA report released last month tentatively linked stimulant medications to deaths and cardiovascular and other serious problems in fewer than one case per million prescriptions written.

No causative relationship has been established in either case, but two panels of experts agreed parents, patients and physicians should be alerted to the potential risks in a tiny fraction of those treated with the drugs -- a risk the pharmaceutical companies say is about equal to that faced by the general population.

Equally varied are youngsters' responses to the medicines, which doctors often dole out on a trial-and-error basis, having to switch doses, then drugs, before fixing upon the right formula.

Specialists stress no definitive pattern of serious injury has emerged in the literature over the more than five decades compounds like Ritalin have been in use. However, critics note most of the studies have lasted no more than a few years so no one knows for sure just how helpful -- or harmful -- they may turn out to be for the growing number of children who take them for far longer.

"Stimulant trials (have) proven short-term efficacy and safety, (but) there are very few long-term safety and efficacy trials," noted Dr. John Walkup, deputy director of the Child and Adolescent Psychiatry Division at the Johns Hopkins Children's Center in Baltimore.

Used alone, the pharmaceuticals do not appear to offer long-range benefits, scientists say.

"They don't improve an ADHD child's outcome in adolescence and adulthood," said William Pelham Jr., distinguished professor of psychology and director of the Center for Children and Families at the State University of New York at Buffalo. He helped develop the medicines Concerta and Adderall and conducted numerous trials involving other ADHD stimulant drugs, including the initial testing of a new methylphenidate skin patch.

His studies, some funded by pharmaceutical companies, have shown behavior therapy in combination with drugs is the most effective treatment and lessens the risk of drug side effects.

"I remain concerned that the medications are used too frequently (nearly 5 percent of children in the United States are medicated with one of these drugs), at doses that are unnecessarily high (three times higher than needed), and for much too long a duration for most children (years rather than months)," Pelham said.

Rather, he advocates that behavioral therapy be used as the first-line treatment of ADHD.

"(Drugs) should be used as adjunctive treatments for children for whom behavioral treatments are insufficient, they should be used at the lowest possible dose, and they should be administered only as long as necessary," he advised.

Next: Coping with confounders.

(Editors' Note: This series on ADHD is based on a review of hundreds of reports and a survey of more than 200 specialists.)

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