

with a significant risk of extrapyramidal side effects, and thus they may not even consider the diagnosis in patients taking this drug. The case we describe indicates that clinicians must be alert to the possibility of akathisia during both active use and withdrawal of risperidone.

REFERENCES

1. Sachdev P: The epidemiology of drug-induced akathisia, part I: acute akathisia. *Schizophr Bull* 1995; 21:431-449
2. Hershen H, Kennedy PF, McGuire RJ: Persistence of extrapyramidal disorders and psychiatric relapse after withdrawal of long-term phenothiazine therapy. *Br J Psychiatry* 1972; 120:41-50
3. Marder SR, Meibach RC: Risperidone in the treatment of schizophrenia. *Am J Psychiatry* 1994; 151:825-835

PATRICIA I. ROSEBUSH, M.D., F.R.C.P.(C)
KAREN KENNEDY, M.D.
BRUCE DALTON, B.SC., PH.M.
MICHAEL F. MAZUREK, M.D., F.R.C.P.(C)
Hamilton, Ont., Canada

Panic Mnemonic

TO THE EDITOR: In DSM-IV, panic disorder is characterized by recurrent, unexpected panic attacks together with either worry about further attacks or a significant change in behavior related to the attacks. The panic attack itself is not a diagnosis or a disorder that can be coded but occurs as a feature of many conditions, including panic disorder. A panic attack is defined by DSM-IV as a discrete period of intense fear or discomfort in which four (or more) of 13 symptoms develop abruptly and reach a peak within 10 minutes.

The National Comorbidity Survey determined that panic disorder affects about 5% of all women and 2% of men (1). Panic attacks themselves are relatively common, with an overall affliction rate of about 9% (2).

Panic disorder, with its wide range of symptoms, has been described as one of the great impostors of medical practice (3), and patients often visit many different physicians before the correct diagnosis is finally made. One study found that patients with panic disorder had seen 10 or more physicians before having their disease correctly diagnosed (4).

In order to help physicians remember the 13 symptoms of panic attacks, I have developed a mnemonic: "Students Fear the C." The letters in "students" represent the symptoms of Sweating, Trembling, Unsteadiness, Depersonalization (or Derealization), Excessive heart rate (palpitations), Nausea, Tingling, and Shortness of breath (or Smothering). "Fear" represents the two fear symptoms of 1) dying and 2) losing control or going crazy. The "C" covers three symptoms: Chest pain, Chills (or hot flushes), and Choking. Heightened awareness of these symptoms will facilitate improved diagnosis and, it is hoped, more timely treatment.

REFERENCES

1. Kessler RC, McGonagle KA, Zhao S, Nelson CB: Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: results from the National Comorbidity Study. *Arch Gen Psychiatry* 1994; 51:8-19
2. Wittchen H-U, Essau CA: Epidemiology of panic disorder: progress and unresolved issues. *J Psychiatr Res* 1993; 27(suppl 1):47-68
3. Sheehan DV: Panic attacks and phobias. *N Engl J Med* 1982; 307:156-158

4. Ballenger JC: Update on anxiety disorders. *Arch Intern Med* 1991; 151:857-859

MARK J. BERBER, M.B., M.R.C.G.P., M.R.C.PSYCH.
Markham, Ont., Canada

Pitocin Induction and Autism

TO THE EDITOR: Following evidence that the neuropeptide oxytocin may regulate affiliative behavior (1, 2), some researchers have suggested that oxytocin may play a role in the symptoms of autistic disorder (3-5). A recently completed study reported that mean plasma oxytocin levels were lower in autistic latency-age children than in age-matched normal subjects (unpublished 1996 study of Modahl et al.), and Hollander has reported preliminary promising results from trials of oxytocin infusion with autistic adults (unpublished 1996 study). Hollander, in a personal communication, suggested that autism may result from disruption of oxytocin by pitocin induction (a synthetic analog of oxytocin) at birth in certain genetically susceptible infants. Despite the fact that he clearly labels this as speculation, the idea was publicized by the popular media covering the recent APA meeting (6). This may have ramifications among obstetrical patients on attitudes about pitocin induction, which makes testing of this interesting hypothesis pressing.

Our study of 633 preschool children with autism, language disorders, or generalized low IQ collected data about pregnancy and delivery, including prevalence of labor induction (7). This allowed us to examine whether autistic children showed greater frequencies of labor induction than the other clinical groups.

We examined the rates of labor induction among 197 children with language disorders (labor induced: 19.3% [N=38]; not induced: 76.1% [N=150]; unknown: 4.6% [N=9]), 51 high-functioning (nonverbal IQ>79) autistic children (labor induced: 21.6% [N=11]; not induced: 76.5% [N=39]; unknown: 2.0% [N=1]), 123 low-functioning autistic children (labor induced: 24.4% [N=30]; not induced: 70.7% [N=87]; unknown: 4.9% [N=6]), and 107 low-IQ children (labor induced: 27.1% [N=29]; not induced: 66.4% [N=71]; unknown: 6.5% [N=7]). For all groups, the observed frequencies of labor induction were extremely close to the expected frequencies. Therefore, we did not find a disproportionate number of autistic children with histories of labor induction.

While the type of induction was not specified in this study, a high proportion of labor inductions are performed with pitocin. If we assume that Hollander's hypothesis is correct, we should have found elevated rates of induction in the autistic groups. We conclude that while oxytocin is a promising avenue of research with autism and more detailed explorations of pitocin-induced labor are warranted, our data do not provide support for a deleterious role of pitocin-induced labor in autism.

REFERENCES

1. Insel TR: Oxytocin—a neuropeptide for affiliation. *Psychoneuroendocrinology* 1992; 17:3-35
2. Newton N: The role of oxytocin reflexes in three interpersonal reproductive acts: coitus, birth and breastfeeding, in *Clinical Psychoneuroendocrinology in Reproduction: Proceedings of the Serrano Symposia 22*. Edited by Carenza L, Pancheri P, Zichella L. New York, Academic Press, 1978, pp 165-182
3. Modahl C, Fein D, Waterhouse L, Newton N: Does oxytocin