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Letters to the Editors

Frequency of sexual dysfunctions in patients with schizophrenia on haloperidol, clozapine or risperidone

Dear Editors,

We examined the frequency of sexual dysfunction in patients with DSM-IV schizophrenia by reviewing medical records at a primary care clinic for those taking haloperidol, clozapine or risperidone. Medical record entries of the following complaints or symptoms were extracted and coded as being either present or absent: loss of libido, anorgasmia, impotence, dry ejaculations, premature ejaculations, galactorrhea, and gynecomastia for males; and amenorrhea, spotting menses, dysmenorrhea, menorrhagia, dyspareunia, galactorrhea, loss of libido and anorgasmia for females.

The sample comprised 54 patients, 17 on haloperidol, 17 on clozapine, and 20 on risperidone. The frequency of sexual dysfunctions in the three groups is presented in Table 1. Patients with two or more sexual dysfunctions accounted for a single case in the analyses. There was a significantly higher proportion of patients with sexual dysfunctions in the risperidone group [males = 4 (66%); females = 12 (86%)] compared with the patients on haloperidol [males = 7 (29%); females = 10 (30%)] and clozapine [males = 5 (60%); females = 12 (58%); χ^2 (2df) = 9.64, $P = 0.008$]. There were no significant differences in the demographic characteristics (age and gender) or body mass index and smoking status between the three groups. Serum prolactin levels were available only on a small number of patients in the haloperidol ($n = 4$) and clozapine ($n = 6$) groups. Consistent with previous reports (Kleinberg et al., 1999), serum prolactin levels in the risperidone group ($n = 18$, mean ± SD: 99.5 ± 67.6 ng/mL) were significantly higher than the levels in the haloperidol (14.4 ± 4.0 ng/mL) and clozapine groups (12.2 ± 3.2 ng/mL; F (df = 2.25) = 7.72; $P = 0.002$). Female patients in the risperidone group had a significantly higher mean serum prolactin level than male patients (females = 127.1 ± 65.5 ng/mL; males = 44.4 ± 25.3 ng/mL; $t = 2.9$, $P = 0.009$). There was also a significantly higher proportion of patients in the risperidone group ($n = 10$, 50%) who were receiving antidepressant medications compared with the patients in the haloperidol ($n = 2$, 11.8%) and clozapine groups [$n = 7$, 41.2%; χ^2 (2df) = 6.28, p = 0.04]. Furthermore, only half the patients in the risperidone group who were receiving antidepressant medication reported sexual dysfunctions. Even though the use

Table 1
Number of patients on risperidone, clozapine or haloperidol with sexual dysfunction

	Risperidone		Clozapine		Haloperidol	
	Male ($n = 6$)	Female ($n = 14$)	Male ($n = 5$)	Female ($n = 12$)	Male ($n = 7$)	Female ($n = 10$)
Menstrual abnormalities	–	10	–	7	–	3
Dyspareunia	–	1	–	0	–	0
Anorgasmia	0	0	0	0	0	0
Galactorrea	0	5	0	0	0	0
Gynecomastia	1	–	0	–	1	–
Impotence	1	–	3	–	1	–
Dry ejaculation	2	–	0	–	0	–
Premature ejaculation	0	–	0	–	0	–
Loss of libido	1	2	0	0	0	0

of antidepressant medication was not associated either with elevated serum prolactin or with the frequency of sexual dysfunctions in the risperidone group, the confounding effects of antidepressant medication on sexual dysfunctions cannot be ruled out (Hirschfeld, 1999).

These results should be cautiously generalized with respect to other populations, as the sample size was small and the data were culled from existing records. We also recognize that the menstrual abnormalities that were included within the spectrum of sexual dysfunctions may develop from other etiologies. Since there was no systematic ascertainment of sexual dysfunctions, the influence of reporting biases cannot be accounted for. However, it is important to note that patients with schizophrenia may frequently develop sexual dysfunctions in the absence of serum prolactin elevation (Verhulst and Schneidman, 1981) and adequate management should include pharmacotherapeutic as well as psychosocial interventions.

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Blair Mullen, BA
Jaspreet S. Brar MD, MPH*
Anthony H. Vagnucci MD
Rohan Ganguli MD
Comprehensive Care Services,
Western Psychiatric Institute and Clinic,
University of Pittsburgh School of Medicine,
3811 O'Hara Street,
Pittsburgh, PA 15213, USA
**E-mail address:* brarjs@msx.upmc.edu

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An open trial of risperidone augmentation of partial response to clozapine

Dear Editors,

Patients with symptoms of schizophrenia that do not fully remit with clozapine monotherapy pose a major clinical problem. Studies indicate that additional antipsychotics are used in 10–13% of patients treated with clozapine in the United States, and 35–60% in Europe (Naber et al., 1992; Peacock and Gerlach, 1994; Stahl, 1999). Risperidone augmentation may be of particular interest. Risperidone monotherapy may be of value in treatment refractory patients (Bondolfi et al., 1998; Flynn et al., 1998; Lindenmayer et al., 1998; Breier et al., 1999; Wirshing et al., 1999). Also, one open trial of risperidone augmentation of clozapine reported a good response (Henderson and Goff, 1996).

The present report concerns risperidone augmentation of partial response to clozapine in 13 hospitalized patients (schizophrenia $n = 12$, schizoaffective-depressed $n = 1$). The mean age was 38 years, and the mean duration of illness since first hospitalization was 18 years. None had a period of good functioning or freedom from psychosis in the previous year. The mean rating on the May scale for treatment resistance (May et al., 1988) was 5.1 (range 4–6), indicating a poor response to multiple previous trials, including nine previously treated with risperidone. At base line, patients were treated with typical antipsychotics ($n = 6$, mean CPZ equivalents 877 mg, S.D. = 411, range 400–1393 mg), with risperidone ($n = 1$, 4 mg plus typicals 254 mg CPZ equivalents), with olanzapine ($n = 2$, 20 mg), with clozapine ($n = 3$, 62.5, 75, 100 mg) or with no antipsychotics ($n = 1$). Clozapine treatment was maintained prior to augmentation for a mean of 22 weeks (range 4–45 weeks) at a dose of 487 mg (S.D. = 179, range 200–800 mg). Only two trials of clozapine alone were shorter than 12 weeks, and both patients previously failed other trials of clozapine. Risperidone augmentation was at a dose of 3.0 mg (S.D. = 1.2, range 2.0–6.0 mg) and was maintained for a mean of 12 weeks (range 4–28 weeks). During augmentation, the mean dose of clozapine was 317 mg (range 150–450 mg). Total and subscale scores from the PANSS are illustrated in Fig. 1. There was no significant difference in total PANSS score between pre-clozapine and clozapine