Research Article

ESCITALOPRAM IN MAJOR DEPRESSIVE DISORDER:
A MULTICENTER, RANDOMIZED, DOUBLE-BLIND,
FIXED-DOSE, PARALLEL TRIAL
IN A CHINESE POPULATION

Pei-xian Mao, M.D.,1 Yi-lang Tang, M.D., Ph.D.,1,2† Feng Jiang, M.D.,1 Liang Shu, M.D.,3 Xiuling Gu, M.D.,4 Ming Li, M.D.,5 Mincai Qian, M.D.,6 Cui Ma, M.D.,7 Philip B. Mitchell, M.B., B.S., M.D.,8 and Zhuo-ji Cai, M.D.1*

Escitalopram, the S-enantiomer of citalopram and the most selective of the selective serotonin reuptake inhibitor (SSRI) has been shown to be efficacious in the treatment of major depression in white populations. Our aim in this study was to investigate the efficacy and tolerability of escitalopram in Chinese patients with moderate to severe major depression. Patients who met DSM-IV criteria for a major depressive episode were enrolled in this multicenter, randomized, double-blind, fixed-dose comparison trial. Patients were given escitalopram 10 mg/day or fluoxetine 20 mg/day for 8 weeks. All patients were assessed with the 17-item Hamilton Depression Rating Scale (HAM-D-17) and the Montgomery–Asberg Depression Rating Scale (MADRS). Tolerability was assessed on the basis of adverse effects (measured with a locally developed checklist), regular biochemical tests, and electrocardiograph (ECG) assessments. Two hundred forty patients were enrolled and randomized to escitalopram (123 patients) or fluoxetine (117 patients). The HAM-D-17 total scores of both groups decreased significantly from baseline, but there was no significant difference at week 8 between the two groups (15.8 for escitalopram and 14.7 for fluoxetine; \( P > .05 \)). There were no significant differences in response rates at all visits after treatment based on either HAM-D-17 or MADRS. A post hoc analysis indicated that escitalopram was superior to fluoxetine on two items of the HAM-D-17: “depressed mood” (\( P = .023 \)) and “work and interest” (\( P = .024 \)). The adverse events reported in the escitalopram and fluoxetine groups were comparable, and most were mild to moderate. Both drugs showed good compliance profiles. Escitalopram 10 mg/day is at least as efficacious as...
fluoxetine 20 mg/day and well tolerated in Chinese patients with major depression, with possible superiority in some core symptoms such as “depressed mood” and “work and interest.” Depression and Anxiety 25:46–54, 2008.

© 2006 Wiley-Liss, Inc.

Key words: major depressive disorder; antidepressant; escitalopram; fluoxetine; efficacy; HAM-D-17; MADRS; Chinese race

INTRODUCTION

Major depression is a growing public health concern. The World Health Organization [WHO; 2001] estimates that 5.8% of men and 9.5% of women suffer from depression each year, and in some countries the proportion may be higher. However, depression in China traditionally has been considered to be less common than in many Western countries, partly because several Chinese epidemiological surveys [Collaborative Group of Epidemiological Study of Mental Illness 1986; Guo et al., 1994; Zhang et al., 1998] adopted the Chinese Classification of Mental Disorders (2nd edition, CCMD-2), which is different from ICD-10 and DSM-IV. The most-cited survey was undertaken in 12 regions of China in 1982, and repeated with almost identical case ascertainment strategies in seven regions in 1993 [Zhang et al., 1998]. Of 19,223 people surveyed in 1993, only 16 (0.08%) fulfilled the criteria for a lifetime affective disorder. However, some more recent studies have shown higher rates of depression in China, especially some well-designed, population-based surveys that used structured psychiatric interviews. In the Global Burden of Disease study, which analyzed a different set of data than the study from China in 1990, Murray and Lopez [1996] found that unipolar major depressive disorder (MDD) was the second largest contributor to the burden of disease in mainland China, accounting for 6.2% of the total burden. The study estimated prevalence rates of 0.4% for bipolar disorder and 1.4% for MDD. The analysis also suggested a 2.3% one-year incidence of MDD. More recently, two large-scale, population-based epidemiological studies were conducted in different areas of China. In Jiangxi province, 15,939 people age 15 years or older were interviewed and assessed with the Composite International Diagnostic Interview [CIDI, Chinese version; Hu et al., 2003]. The point prevalence of major depression was 0.95%, with a lifetime rate of 1.15% [95% confidence interval (CI): 0.91–1.49]. More recently, Shen et al. [2005] interviewed 5,201 people (2,633 in Beijing and 2,568 in Shanghai) using a multistage household probability sampling method, and all subjects were also assessed with a Chinese version of the CIDI. They found that the 12-month prevalence of any DSM-IV mental disorder in metropolitan China was 7.0%, with MDD (2.0%), specific phobia (1.9%), and intermittent explosive disorder (1.7%) being the most common. These studies suggest that depression in Chinese populations, though not as common as that in Western populations, is still a relatively common mental disorder that deserves more attention.

Pharmacotherapy remains the mainstay of treatment for depression in China, with very limited counseling and therapy resources available [Tang, 2001; Tang and Cai, 1998]. Until the late 1980s, tricyclic antidepressants (TCAs) had been the first-line drugs; however, this situation has changed because of the availability of second-generation antidepressants that have a more favorable side effect profile and lower toxicity associated with overdose [Mendlewicz, 2001; Si et al., 2004; Tang, 2001]. Si et al. [2004], who reported their results on antidepressant use in 735 patients from 10 regions of China, found that 44.5% of patients were on selective serotonin reuptake inhibitors (SSRIs), whereas 41.9% of patients still received TCAs. This suggested that SSRI and other newer antidepressants were beginning to surpass TCAs in the treatment of depression in China.

Escitalopram is the S-enantiomer of citalopram and the most selective of the serotonin reuptake inhibitors [Owens et al., 2001; Owens and Rosenbaum, 2002]. The antidepressant activity of escitalopram observed in validated animal models of depression [Hyttel et al., 1992; Mork et al., 2003; Sanchez and Kreilgaard, 2004], with evidence of a higher potency, was found to be superior to that of citalopram [Moore et al., 2005; Sanchez et al., 2003, 2004]. Clinical studies have indicated that escitalopram 10 mg/day is an efficacious and well-tolerated treatment for MDD in both primary care [Wade et al., 2002] and specialist settings [Burke et al., 2002]. Some studies indicate early symptom reduction with escitalopram [Azorin et al., 2004; Montgomery et al., 2001]. Escitalopram has been studied in randomized clinical trials versus placebo [Burke et al., 2002; Kasper et al., 2005; Lepola et al., 2003; Wade et al., 2002], citalopram [Burke et al., 2002; Colonna et al., 2002, 2005; Gorman et al., 2002], venlafaxine [including extended release; Bielski et al., 2004; Montgomery et al., 2004], and fluoxetine [Kasper et al., 2005]. In all but one trial [Kasper et al., 2005], escitalopram was superior to placebo and was at least as efficacious as the active comparator. In the study of older patients by Kasper et al. [2005], neither fluoxetine or escitalopram showed superiority to placebo; that is, this was a “failed” study.
More recently, in an 8-week, open-label trial, Rush and Bose [2005] also found escitalopram treatment to be well tolerated and associated with robust response rates in a broadly representative population of depressed outpatients, which included 5,453 outpatients with nonpsychotic MDD, from primary care (n = 2,591), psychiatric (n = 2,289), and other specialties (n = 573).

To our knowledge, there have been no clinical studies of escitalopram in MDD undertaken in Chinese patients. The main purpose of our study was to investigate the efficacy and tolerability of escitalopram in Chinese patients with MDD, using fluoxetine as an active comparator. The study was designed in accordance with the regulations of the Chinese State Food and Drug Administration on clinical trial guidelines for imported drugs.

METHODS

TRIAL ORGANIZATION

This randomized, parallel group, double-blind, 8-week trial was undertaken in the outpatient and inpatient departments of six psychiatric hospitals in China, from November 2003 to July 2004. The hospitals and locations for the trials were Beijing Anding Hospital (Beijing), the Mental Health Institute of Peking University (Beijing), Beijing Chaoyang Hospital (Beijing), Guangzhou Brain Hospital (Guangzhou, Guangdong Province), Huzhou Mental Health Center (Huzhou, Zhejiang Province), and Suzhou Guangji Hospital (Suzhou, Jiangsu Province). The protocol was approved by each institution’s human subject committee, in accordance with the principles of the Declaration of Helsinki, and all patients gave informed consent prior to participation in any study-related procedures.

Escitalopram tablets were produced by H. Lundbeck A/S (Denmark). Fluoxetine tablets were produced by the Fourth Pharmaceutical Company (Changzhou). All tablets were stored at room temperature and identical in appearance.

PATIENTS: INCLUSION AND EXCLUSION CRITERIA

Patients were between 18 and 65 years of age and met criteria for MDD as defined by DSM-IV [American Psychiatric Association, 1994]. In addition, patients were required to have both a Clinical Global Impression of Severity (CGI-S) rating ≥ 4 and a clinician-rated, 17-item Hamilton Depression Rating Scale (HAM-D-17) total score ≥ 18 at both the screening and baseline study visits for inclusion. Patients were excluded if they had any current primary DSM-IV Axis I diagnosis other than MDD or any anxiety disorder as a primary diagnosis within the year preceding enrollment; any previous diagnosis of bipolar disorder, psychosis, or schizoaffective disorder; a history of substance abuse or dependence (not including nicotine dependence) within the past year; serious suicidal risk; or a serious medical illness (cardiovascular, hepatic, renal, respiratory, hematological, endocrinological, or neurological disease, or clinically significant laboratory abnormality). Patients who were currently taking St. John’s wort (Hypericum perforatum) or other Chinese herbal medicine for depression were also excluded.

TREATMENTS AND ASSESSMENTS

All patients (n = 240) had been drug-free for at least 14 days before starting treatment with escitalopram or fluoxetine. After the washout period, patients were randomly assigned in a 1:1 ratio to escitalopram (10 mg/day) plus placebo fluoxetine or fluoxetine (20 mg/day) plus placebo escitalopram (both administered once daily between 9:00 and 10:00 A.M.). In other words, we administered treatments in a double-blind fashion using a double-dummy design.

The primary outcome measure was change in the HAM-D-17 total score [Hamilton, 1960; Zhang, 1993]. The secondary outcome measure was change in the Montgomery–Asberg Depression Rating Scale (MADRS) total score. Remission was defined as a HAM-D-17 total score < 7, and response was defined as at least a 50% decrease from baseline. For the MADRS, remission was defined as a MADRS score ≤ 12, and response was defined by at least a 50% decrease from baseline [Burke et al., 2002; Lepola et al., 2003].

Adverse events were assessed with a locally developed Adverse Event Record form based on the literature [Bielski et al., 2004; Burke et al., 2002; Colonna et al., 2002; Lepola et al., 2003; Montgomery et al., 2004; Wade et al., 2002]. The severity of adverse events was rated by the investigator as mild (patient aware of a symptom, but easily tolerated), moderate (discomfort enough to interfere with usual activity), or severe (incapacitating, with inability to work or perform routine activities). The relationship of each adverse event to study drug was also rated by investigators as none (no relationship), coincidental (other causes of event more likely); possible (cannot be confirmed nor denied), probable (no clear objective finding to indicate other causes), or definitive (strong suspicion). Tolerability was also assessed on the basis of a weekly physical examination, vital signs, electrocardiographic (ECG) and biochemical examination.

We assessed compliance using patient diaries and tablet counts. Caregivers were also asked to supervise patients to ensure compliance. Patients who had not taken the study drug for 3 consecutive days or had not taken the study drug for a total of 6 days, were then deemed to be in poor compliance.

STATISTICS

All statistical analyses were performed by Shanghai Apex medical research company. A two-way repeated
measures analysis of variance (ANOVA; time × treatment interaction) was used. Both a between-group patient factor (group) and a within-patient factor (time) were considered for HAM-D-17 scores. In addition, a post hoc, one-way repeated measures ANOVA with a two-tailed Tukey mean comparison test was performed on the change in HAM-D-17 scores from baseline. To compare the decrease in the HAM-D-17 score at week 8 compared with baseline, we used an unpaired, two-sided Student’s t-test. Results are presented as mean ± standard deviation, and differences were considered significant if P ≤ .05.

We calculated a sample size of 112 patients per treatment group to provide 80% power to show noninferiority of escitalopram to fluoxetine using the HAM-D-17 total score, assuming a treatment difference of less than 3 points and a standard deviation of 9 points. We estimated the treatment difference between escitalopram and fluoxetine using a two-way analysis of covariance (ANCOVA) model, with treatment group and center as factors, and baseline HAM-D-17 total score as covariate.

We based the prospectively defined primary efficacy end point on the HAM-D-17 score at 8 weeks using “observed cases” (OC) analysis. In addition, intention-to-treat (ITT) analysis with the last observation carried forward (LOCF) procedure was also performed. All results discussed are based on OC analysis unless otherwise stated. All patients enrolled were included in the safety analyses. To compare the baseline data and frequency of adverse events between treatments, we performed Fisher’s exact test.

RESULTS

Of the 240 patients enrolled, 208 (86.7%) completed the study, with 108 in the escitalopram group (87.8% of those enrolled) and 100 in the fluoxetine group (85.5%; Fig. 1). There were no significant differences in age, weight, and physical condition between the two

![Image](https://via.placeholder.com/150)

Figure 1. Flow chart of patient disposition. Of the 240 patients enrolled in the study, 208 patients (86.7%) completed the study, 108 patients were in the escitalopram group (87.8%), and 100 patients in the fluoxetine group (85.5%).

Depression and Anxiety DOI 10.1002/da
groups. There were significantly more men randomized to treatment with escitalopram (Table 1). Baseline symptom severity scores indicated a moderately to severely depressed patient population, with mean baseline HAM-D-17 scores of 24.7 in the escitalopram group and 24.1 in the fluoxetine group of patients (MADRS mean baseline scores were 30.1 and 31.2, respectively).

TREATMENT RESPONSE

At the end of week 8, the total HAM-D-17 score decreased 15.8 points from baseline in the escitalopram group, and 14.7 points in the fluoxetine group (LOCF); this difference was not statistically significant (P>.05). There was no significant difference between treatment groups (Table 2), research centers, or the interaction between treatment groups and research centers (P>.05), according to ANCOVA analysis. Additionally, there was no significant difference in the mean change in MADRS total scores between two groups (P>.05); the MADRS change scores were 20.9 for escitalopram and 20.3 for fluoxetine (LOCF); see Figure 2.

There were no significant differences in response or remission rates between the two treatment groups at any visit. At the end of treatment (week 8), the response rates measured by HAM-D-17 and MADRS were 80% and 82%, respectively, for the escitalopram group, and 79% and 81%, respectively, for the fluoxetine group (P>.05) (Table 3). Response rates based on Clinical Global Impression of Improvement (CGI-I)≤2 were 74% (escitalopram) and 86% (fluoxetine; P>.05). Remission rates based on CGI-S≤2 were 65% for escitalopram and 78% for fluoxetine (P>.05).

We performed a binary logistic regression analysis, with age, type of antidepressant, and sex as factors and HAM-D-17 response. After adjusting for age and sex, the type of antidepressant was not associated with treatment response (P=.690, relative risk (RR) = 1.158, 95% CI: 0.564–2.378). Patient age was significantly associated with response (P=.017, RR = 1.035, 95% CI: 1.006–1.065), with older age associated with a higher response. Further analysis showed that the association was only found in the escitalopram group (P=.010, RR = 1.069, 95% CI: 1.016–1.124) but not in the fluoxetine group (P=.504). Further analysis also revealed that older age of onset was associated with better response in the escitalopram group (P=.003, RR = 1.075, 95% CI: 1.025–1.127), and that the mean age of onset of responders (34.0 ± 14.8) was significantly higher than that of nonresponders (25.8 ± 9.5). The difference in age of onset between responders and nonresponders to fluoxetine was not significant (P>.05).

Table 4 details the percentage response rates for individual items on the HAM-D-17 by the end of the study. For most items, escitalopram was numerically superior to fluoxetine, and on the items “depressed mood” and “work and interest,” escitalopram was statistically significantly better than fluoxetine.
Patient drug compliance was high and similar for both treatment groups (121 patients in the escitalopram group and 115 patients in the fluoxetine group were considered compliant according to patient diaries). Four patients were noncompliant (did not take the drug for more than 6 days); two of these patients withdrew prematurely from the study (see Fig. 1).

The percentage of patients who were withdrawn from the study due to adverse events was similar in the two treatment groups: six patients in the escitalopram group (5%), and five patients in the fluoxetine group (4%). The most common adverse event leading to withdrawal was nausea. One patient in the escitalopram group had a severe adverse event (attempted suicide by benzodiazepine overdose) and was withdrawn from the study, but the investigator did not consider this to be related to the drug.

One hundred ten patients reported adverse events: 55 patients in the escitalopram group (45% of those allocated to escitalopram) and 55 in the fluoxetine group (47%). Most adverse events were of mild to moderate severity and transient. Nausea, dizziness, drowsiness, dry mouth, and headache were the adverse events with incidence greater than 5% (Table 5).

There were no significant between-group differences in blood or urinary biochemistry. Some patients had abnormal results that were considered to be related to the study drug. Blood bilirubin levels of two patients in the escitalopram group modestly increased, and recovered 1 week after drug withdrawal. Six patients in the fluoxetine group had abnormal clinical laboratory results: Two patients showed increased blood bilirubin levels, and 1 patient each had abnormal liver function, blood calcium level decrease, and erythrocyte abnormality, or leukocytopenia. There were no clinically relevant differences in vital signs, physical examination, or ECG parameters before and after treatment in either group.

**DRUG COMPLIANCE**

Patient drug compliance was high and similar for both treatment groups (121 patients in the escitalopram group and 115 patients in the fluoxetine group were considered compliant according to patient diaries). Four patients were noncompliant (did not take the drug for more than 6 days); two of these patients withdrew prematurely from the study (see Fig. 1).

**TOLERABILITY**

The percentage of patients who were withdrawn from the study due to adverse events was similar in the two treatment groups: six patients in the escitalopram group (5%), and five patients in the fluoxetine group (4%). The most common adverse event leading to withdrawal was nausea. One patient in the escitalopram group had a severe adverse event (attempted suicide by benzodiazepine overdose) and was withdrawn from the study, but the investigator did not consider this to be related to the drug.

One hundred ten patients reported adverse events: 55 patients in the escitalopram group (45% of those allocated to escitalopram) and 55 in the fluoxetine group (47%). Most adverse events were of mild to moderate severity and transient. Nausea, dizziness, drowsiness, dry mouth, and headache were the adverse events with incidence greater than 5% (Table 5).

There were no significant between-group differences in blood or urinary biochemistry. Some patients had abnormal results that were considered to be related to the study drug. Blood bilirubin levels of two patients in the escitalopram group modestly increased, and recovered 1 week after drug withdrawal. Six patients in the fluoxetine group had abnormal clinical laboratory results: Two patients showed increased blood bilirubin levels, and 1 patient each had abnormal liver function, blood calcium level decrease, and erythrocyte abnormality, or leukocytopenia. There were no clinically relevant differences in vital signs, physical examination, or ECG parameters before and after treatment in either group.

**CONCOMITANT MEDICATION**

Some patients also received treatment with short half-life sedative or anxiolytic agents: 29.3% (36/123)
of the escitalopram group and 34.2% (40/117) of the fluoxetine group (P > .05). The commonly used agents in both groups included alprazolam (1 mg), lorazepam (2 mg), clonazepam (7.5 mg), flurazepam (15 mg), midazolam (15 mg), and zopiclone (15 mg). The diazepam equivalent dosages were ≤10 mg in both groups; there were no significant differences in usage of these agents between the two treatment groups.

DISCUSSION

Our study confirms that escitalopram is effective in the treatment of depression and is well tolerated [Burke et al., 2002; Lepola et al., 2003, 2004; Llorca et al., 2005; Moore et al., 2005]. Escitalopram 10 mg/day had comparable efficacy to fluoxetine 20 mg/day, based on the primary and secondary efficacy measurements (improvement in HAM-D-17 and MADRS total scores). Analysis of the ITT population showed that the mean changes from the baseline score of HAM-D-17 total at week 8 were 15.8 in the escitalopram group and 14.7 in the fluoxetine group, with no significant difference between the two groups, suggesting that escitalopram was as efficacious as fluoxetine in acute treatment of depression. The response rates of two core symptoms of depression (depressed mood and no interest in work) in the escitalopram group were significantly better than those in the fluoxetine group. Based on a MADRS total score ≤12, over 75% of patients had achieved remission by week 8, which is remarkable considering that patients were moderately to severely depressed at baseline. This is in contrast to many European studies, in which higher dosages are needed to bring patients with severe depression (baseline MADRS total score ≥30) into remission [Bech et al., 2004].

The response to SSRIs may be influenced by body weight, age, sex, and genetic makeup, and can therefore vary between individuals and between different ethnic populations [Poolsup et al., 2000]. For example, Chinese and Asian populations have a higher incidence of poor metabolizers, resulting in higher drug plasma levels. Chinese patients produce 40–50% higher plasma haloperidol concentrations compared to white and black patients [Potkin et al., 1984]. The cytochrome P450 isozymes CYP1A2, CYP2C9, CYP2C19, CYP2D6, and CYP3A4 are primarily involved in SSRI metabolism, and the frequency of different alleles varies between different groups [Mancama and Kerwin, 2003]. There also appears to be a marked influence of the serotonin transporter promoter on the response to SSRIs. In Japanese patients with MDD, a significant association was reported between the (s) allele and response to fluvoxamine. The frequency of this allele is 50% for white populations and 75–79% for Korean or Japanese populations [Mancama and Kerwin, 2003].

The response and remission rates in our study are higher than those reported in a previous trial of depressed Chinese patients treated with 20–40 mg fluoxetine daily (mean dose of 31.7 mg) for 6 weeks [Hong et al., 2003]. This may be due to the higher dropout rate, which these authors attributed to a lack of sensitivity of Chinese patients to the medication and the shorter trial period. Hong et al. also reported nausea and dizziness as frequent adverse events for patients treated with fluoxetine. The tolerability and efficacy of escitalopram has not been previously reported in Chinese patients. In a small (n = 20), nonrandomized trial with depressed patients from Pakistan, Khan [2004] compared 6-week treatment of escitalopram 10 mg/day and clomipramine 150 mg/day. He reported similar efficacy at end point for both drugs, and no side effects with escitalopram. Lalit et al. [2004] reported a good response in depressed Indian patients after 4–6 weeks of treatment with escitalopram 10 mg/day, citalopram 20 mg/day, and sertraline 50–100 mg/day. Patients treated with escitalopram reported headache, gastrointestinal side effects, giddiness, and insomnia as the most common adverse events.

In our study, almost all patients in the escitalopram and fluoxetine groups had good drug compliance, with only four patients failing to take the drug for more than 6 days. Nearly all adverse events were rated by the investigator as mild or moderate in nature, with most occurring within the first 2 weeks of the trial. Most of the reported adverse events involved the gastrointestinal and the nervous systems. The adverse events were typical for SSRIs. There was no significant difference between the clinical laboratory results at baseline and after treatment in both groups. Approximately one-third of the patients in each treatment group (29.3% vs. 34.2% in escitalopram vs. fluoxetine) received hypnotics or antianxiety agents, but this did not affect the primary study outcomes.

Clinical trials have proved that the effect of escitalopram in depression is significantly better than placebo, and in some studies the effect is better than citalopram [Burke et al., 2002; Gorman et al., 2002; Moore et al., 2005]. In severe depression (baseline MADRS total score ≥30), there is further evidence that escitalopram is statistically significantly better than citalopram [Bech et al., 2004; Moore et al., 2005].

Several limitations of our study should be acknowledged. First, as in many similar studies, drug diaries, tablet counts, and caregivers’ supervision (for outpatients) were used to monitor drug compliance, and not plasma concentrations. Although the close bond of Chinese families helps, self-report is still less reliable than plasma levels. The possibility that there were some ultrarapid metabolizers in either group might have affected the results [Mitchell, 2004], although patients were randomly assigned to treatment. Second, patients with comorbid psychiatric disorders were excluded, as were those with high risk of suicide, so this patient population is not representative of patients with depression. Third, the treatment length of 8 weeks may have been too short to demonstrate a difference in efficacy between escitalopram and fluox-
etine treatment, since by the end of week 8, the trend for improvement in both groups continued. Previous analyses of patients responding to fluoxetine treatment have suggested that partial responders at week 8 may still benefit from a further 2–4 weeks of treatment [Quitkin et al., 2003]. Fourth, the dosages of both active drugs were relatively low. In other, non-placebo-controlled studies in depression, fluoxetine dosages of up to 40 mg/day [Newhouse et al., 2000] or 60 mg/day [Devanand et al., 2005] were well-tolerated and achieved high remission rates.

In conclusion, our study showed that escitalopram 10 mg/day and fluoxetine 20 mg/day are effective and well tolerated in the acute treatment of MDD in Chinese patients. These results thus support findings in previous studies with escitalopram. The generalizability of the results of acute treatment to long-term treatment, especially in Chinese populations, needs to be investigated in the future.

Acknowledgments. Our thanks to all the participants for their time and cooperation. We are grateful to the six centers that participated in the study, and to the anonymous reviewers who provided helpful comments on the previous version of this manuscript.

REFERENCES


Depression and Anxiety DOI 10.1002/da


