Effectiveness and Tolerability of the Vortioxetine Oral Drops Formulation in Major Depressive Disorder Under Real-world Conditions in Switzerland

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BACKGROUND

In addition to a tablet (TBL) formulation, vortioxetine is available in Switzerland as an oral drop solution for the treatment of major depressive disorder (MDD). This analysis was undertaken to assess the effectiveness, dosing pattern, and tolerability in patients who initiated treatment with vortioxetine oral drops compared to oral tablets in real clinical practice in Switzerland.

METHODS

This is a post hoc analysis of an 8-week noninterventional, multicentric, prospective study evaluating the effectiveness and tolerability of vortioxetine in the treatment of patients with a current major depressive episode (MDE) under real-world conditions in Switzerland. The primary effectiveness endpoint was the change of depressive symptoms according to the sum of unanchored Montgomery-Åsberg Depression Rating Scale (MADRS) items. Details on study design and methods are reported elsewhere.[1] Patients starting treatment with vortioxetine tablets (TBL) were compared to patients starting treatment with vortioxetine oral drops solution (ODS) regarding the following aspects: patient demographics, clinical characteristics, titration, dosing, effectiveness on depressive symptoms and functioning, safety, and tolerability. Statistical tests were performed as appropriate (Two-sample *t*-test, Fisher's exact test, Chi-square test, general linear model).

Table 1. Patient Disposition at Baseline

	Patients initiated on tablets (n=165)	Patients initiated on drops (n=60)	*P*-value
Age, years	43.3 (13.6)	43.0 (13.4)	0.848[a]
Sex, female, % (n)	57.0 (94)	51.7 (31)	0.479[b]
Presence of ≥1 comorbidity, % (n)	35.2 (58)	21.7 (13)	0.054[b]
Duration of current depressive episode, months	4.8 (7.6)	2.9 (4.1)	**0.016[a]**
First depressive episode, % (n)	46.1 (76)	65.0 (39)	**0.012[b]**
Sum of MADRS items	34.0 (9.3)	34.8 (7.6)	0.555[a]
Severity of depressive episode according to clinical judgment, % (n)			0.092[c]
Mild	3.6 (6)	3.3 (2)	
Moderate	69.7 (115)	55.0 (33)	
Severe	26.7 (44)	41.7 (25)	

Data are presented as mean (SD), unless otherwise specified. [a]Two-sample *t*-test; [b]Chi-square test; [c]Fisher's exact test. MADRS, Montgomery-Åsberg Depression Rating Scale; ODS, oral drop solution; TBL, tablets.

Figure 1. Dosing Pattern over Study Period

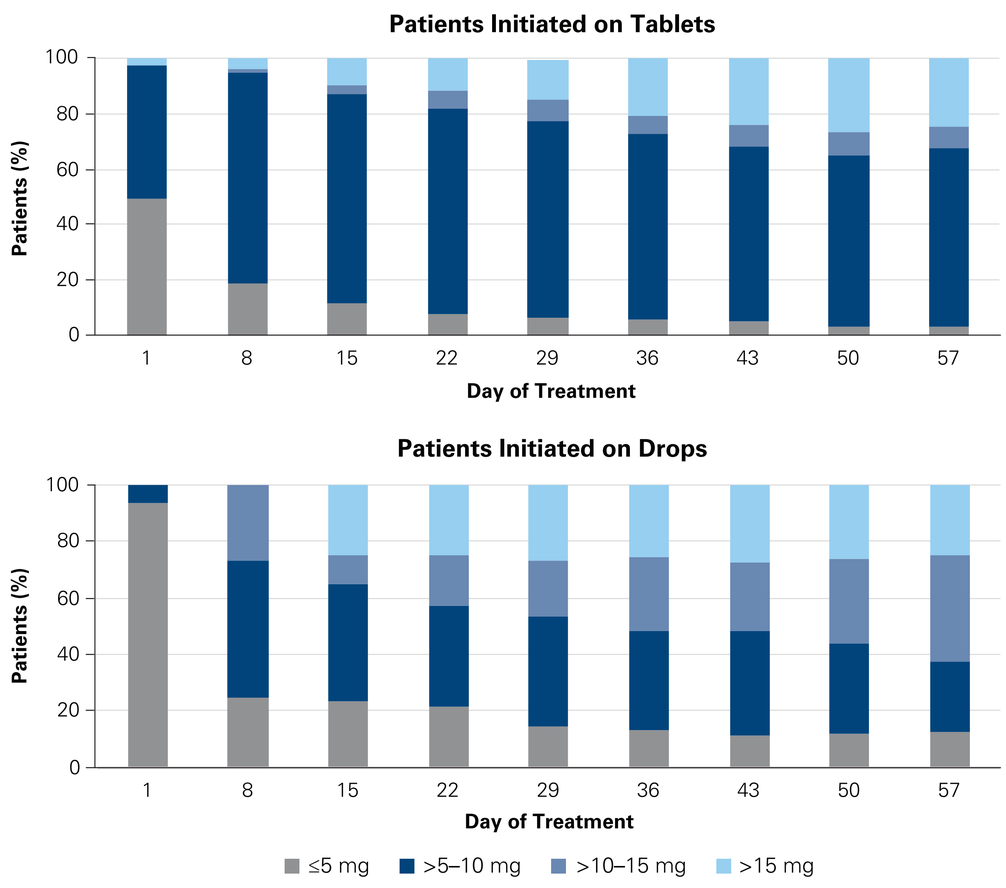


Table 2. Incidence of Adverse Events

AEs with an incidence ≥2%	Patients initiated on TBL (n=165)	Patients initiated on ODS (n=60)	*P*-value[a]
Incidence of AEs, % (n)	30. 3 (50)	8.3 (5)	**<0.001**
Drug ineffective, % (n)	23.6 (39)	5.0 (3)	**<0.001**
Nausea, % (n)	3.6 (6)	3.3 (2)	1.000
Headache, % (n)	2.4 (4)	0 (0)	0.576

[a]Fisher's exact test. AEs, adverse events.

Figure 2A. Severity of Depression According to Sum of MADRS Items[a]

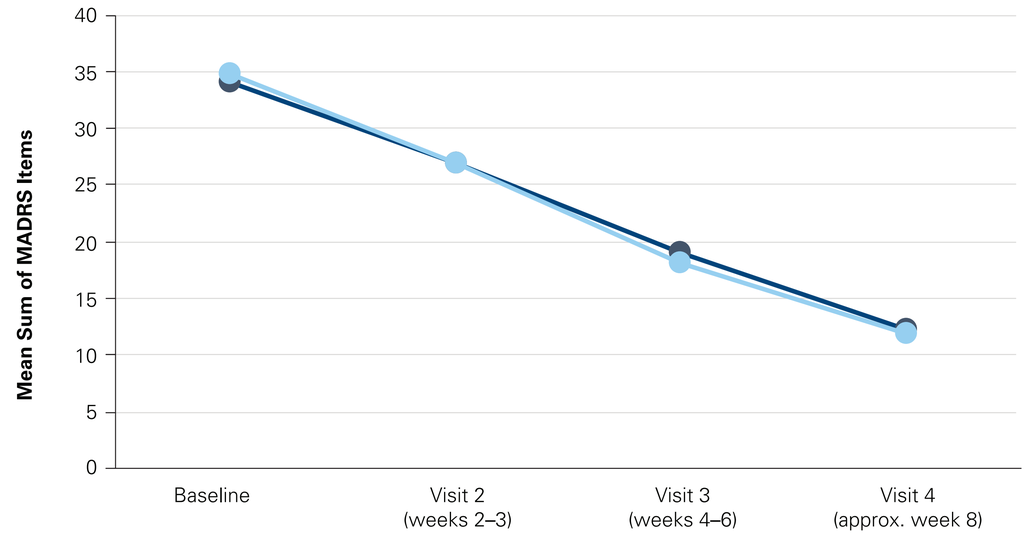
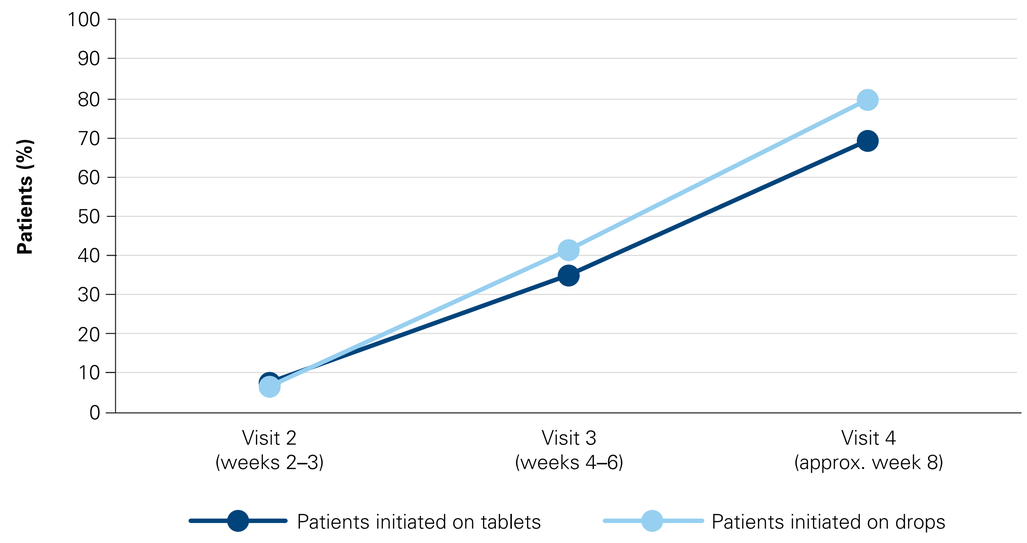


Figure 2B. Response According to Sum of MADRS Items[a]



[a]According to MADRS items: symptoms during the last 7 days: 0=none, 1=almost none, 2=mild, 3=moderate, 4=marked, 5=intense, 6=extreme, observed cases. MADRS, Montgomery-Åsberg Depression Rating Scale

A) Mean improvement of depressive symptoms from baseline to Visit 4 was similar for drops and tablets: 22.7 vs 21.9 sum of MADRS items. **B)** At Visit 4, response rates were not statistically significantly different with drops (80.0%) vs tablets (69.3%). Response was defined as ≥50% reduction of depressive symptoms vs baseline.

RESULTS

The analysis included 225 patients, 26.7% of whom initiated treatment with oral drops. Most patients who started on drops received vortioxetine as treatment for their first MDE (65% ODS vs 46% TBL, $P<0.05$). In these patients, vortioxetine treatment was initiated significantly earlier in the course of their MDE than in patients started on tablets (mean duration of current MDE was 2.9 months ODS vs 4.8 months TBL, $P<0.05$). There was no statistically significant difference in severity of the current MDE at baseline between the groups (sum of MADRS items 34.8 ODS vs 34.0 TBL). However, among the patients who initiated treatment with ODS, more were clinically judged to be severely depressed (41.7% ODS vs 26.7% TBL; **Table 1**).

Patients who initiated treatment with drops increased dose considerably earlier than patients who started with tablets. After 2 weeks of treatment, 35% ODS vs 13% TBL received a dose >10 mg daily, which by the end of observation, increased to 62.5% ODS vs 32.7% TBL (**Figure 1**).

The mean improvement in the sum of MADRS items over 8 weeks was similar between the groups (–22.7 ODS vs –21.9 TBL, $P=0.66$; **Figure 2A**). Response rates were 80.0% and 69.3% for oral drops and tablets, respectively, with no statistically significant difference ($P=0.13$; **Figure 2B**). Improvement of functioning in the domains of cognition, of professional, family and social activities, of physical well-being, and quality of life was similar between the groups.

Adverse events (AEs) were reported in 30.3% of patients initiated on tablets and 8.3% initiated on oral drops. For both groups "drug ineffective" was the most commonly reported AE (23.6% TBL; 5.0% ODS, $P<0.001$; **Table 2**).

CONCLUSION

Treatment initiation with vortioxetine oral drops allows individualized dose titration in real clinical practice. There was a tendency to choose vortioxetine oral drops for patients with their first depressive episode. Compared to vortioxetine tablets, there was no significant difference in effectiveness on depressive symptoms. Vortioxetine oral drops were well tolerated. Greater doses of vortioxetine were generally reached earlier in the treatment course when patients initiated treatment with the oral drops solution.

ACKNOWLEDGMENTS

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REFERENCE

1. Kammerer M. et al. Effectiveness and Tolerability of Vortioxetine in the Treatment of Major Depressive Episodes under Real-world Conditions in Switzerland. Poster presented at the Annual SGPP congress, Bern, Switzerland, 7-8 September.