Stopping Onabotulinum treatment after the first 2 cycles might not be justified: results of a real-life monocentric prospective study in chronic migraine

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Onabotulinum toxin A (OnabotA) cyclic treatment is approved for the prophylactic treatment of chronic migraine (CM), a highly disabling disorder. Although treatment response varies among patients, current guidelines suggest to stop treatment after cycle 2 if no response is achieved (1). This prospective study aimed to define, in real-life setting, the evolution of the response to OnabotA over 5 cycles of treatment among patients non-responders to cycle 1. The results of this study might help in deciding whether to prosecute OnabotA when facing a patient not responding to cycle 1.

Methods

Patients failing to respond to cycle 1 were recruited to complete 5 cycles. Key outcomes were: (i) a ≥50% or 30-50% reduction in headache days, (ii) a ≥50% or 30-50% reduction in total hours of headache on headache days and (iii) a ≥5-point improvement in HIT-6 scores.

Results

Overall, 56 patients were included (Table 1). Responders (headache days reduction of more than 50%) progressively increased, doubling from cycle 2 to cycle 5 (from 27% to 48%) (Table 2, Fig. 1 and 2). In addition, patients regressed from CM to episodic migraine (EM) moving on with cycles; 78% reached less than 9 migraine days/month after cycle 5. The headache days per month decreased significantly from cycle 1 to cycle 5 (overall from 23.3 ± 5.7 to 9.2 ± 3.6; p<0.001). During 12 months (5 cycles), migraine days per month progressively abated (from 18.5 to 8.7; p<0.001), days with symptomatic medications intake/month consistently decreased (from 17.4 to 8.1; p<0.001), and mean HIT-6 score lowered (from 72.4 ± 5.7 to 50.2 ± 4.3; p<0.001).

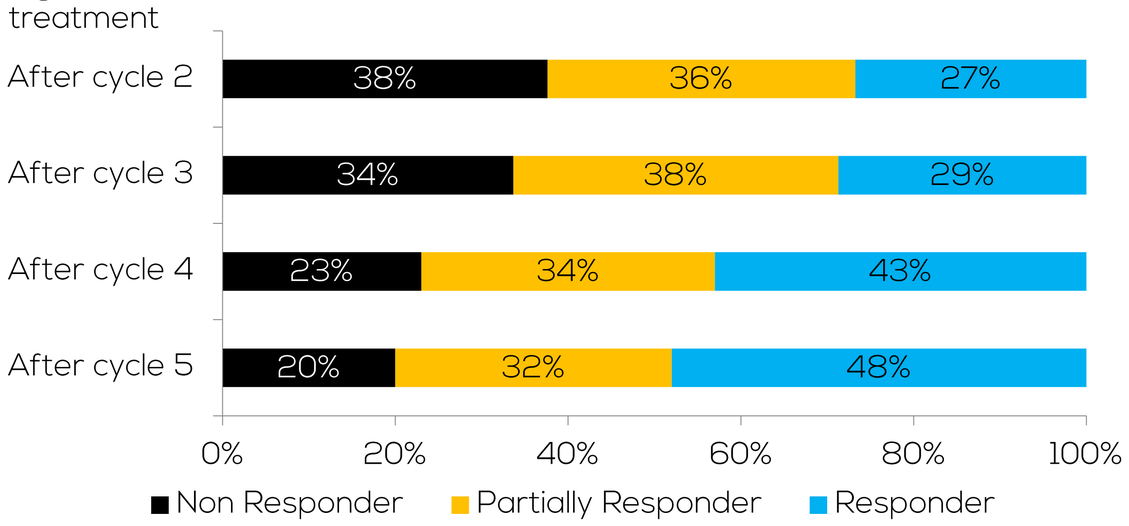
Table 1. Baseline demographic and clinical data (n=56).
Baseline data refers to the 3 months before starting OnabotA treatment.
CM: Chronic Migraine; HIT-6: Headache Impact Test-6.

Mean age, years (range)	45.7 ± 6.5 (26-67)
Female % (n)	83.9% (47)
Years from CM diagnosis (range)	7.9 ± 4.3 (1–17)
Days with Headache/month at baseline	23.1 ± 6.3
Days with Headache/month after cycle 1	23.3 ± 5.7
Days with Migraine/month at baseline	18.9 ± 5.6
Days with Migraine/month after cycle 1	18.5 ± 4.3
Medication intake days per month at baseline	18.0 ± 4.4
Medication intake days per month after cycle 1	17.4 ± 3.6

Table 2. Variations in outcome measures referred to the OnabotA cycles
*=p<0.001.

Time point	Headache days per month	Migraine days per month	Medication intake days per month	HIT-6
After cycle 1	23.3 ± 5.7	18.5 ± 4.3	17.4 ± 3.6	72.4 ± 5.7
After cycle 2	17.4 ± 4.7*	12.2 ± 4.7*	11.4 ± 3.6*	66.2 ± 5.1*
After cycle 3	12.6 ± 4.2*	10.5 ± 3.4*	10.3 ± 3.7*	57.5 ± 4.5*
After cycle 4	10.3 ± 3.2*	9.3 ± 2.7*	9.1 ± 3.2*	54.6 ± 5.3*
After cycle 5	9.2 ± 3.6*	8.7 ± 2.5*	8.1 ± 2.6*	50.2 ± 4.3*

Figure 1. Evolution over treatment cycles of the response to OnabotA treatment



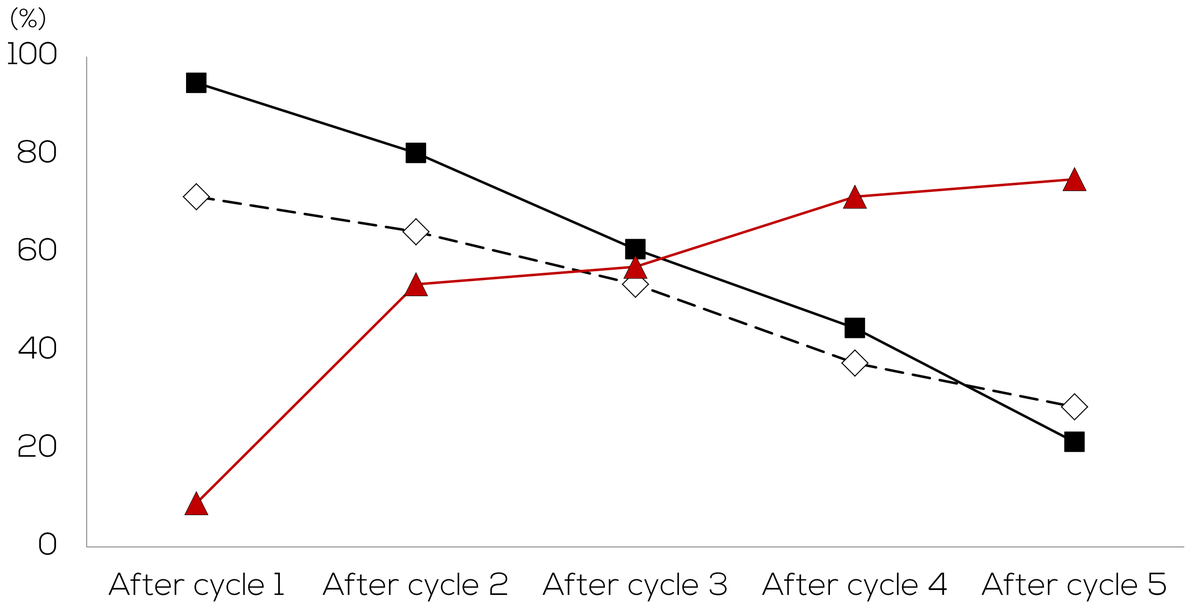


Figure 2. Evolution of HIT-6 scores and medication overuse with treatment cycles. Significant improvement (p<0.05) was found for all items considered.

Figure 3. Conversion rate from chronic to episodic migraine across treatment cycles

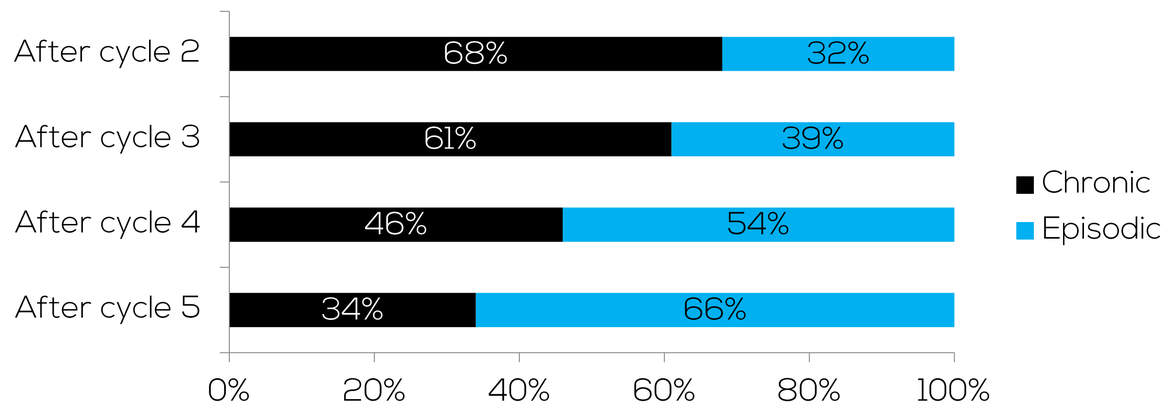
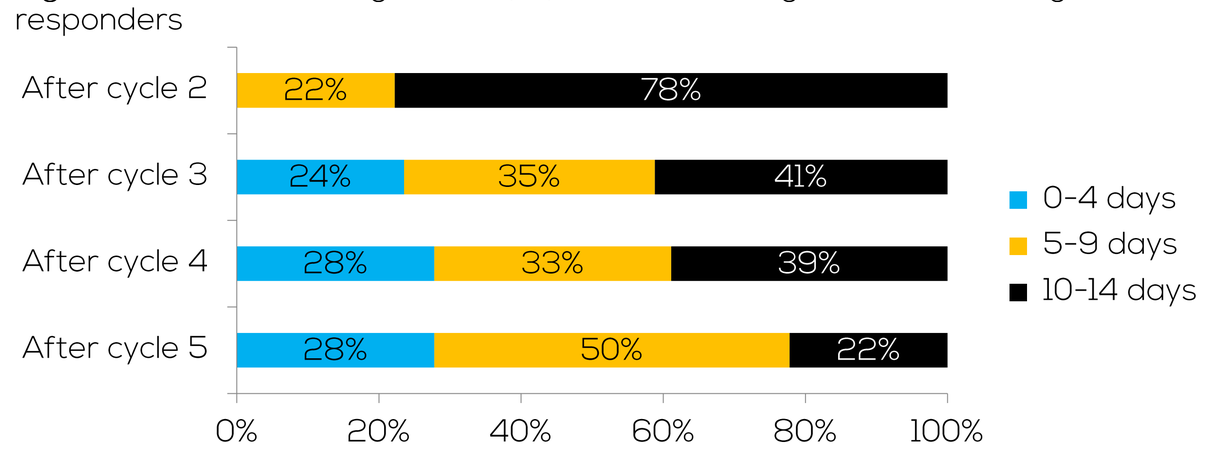


Figure 4. Evolution of migraine days per month during treatment among responders



Take-home message

The positive effect of OnabotA treatment spreads over the course of the treatment, and might also manifest late in treatment course among patients with no benefit after the first 2 cycles. Thus, the results of this real-life study suggest to extend OnabotA treatment further, beyond cycle 2, to avoid premature withdrawal in patients who would have become responders at cycle 3, 4 or 5.

References
1. Loder E et a. The 2012 AHS/AAN guidelines for prevention of episodic migraine: a summary and comparison with other recent clinical practice guidelines. Headache 2012) 52:930-45.