

Burden of treatment and quality of life in relapsing remitting multiple sclerosis patients under early high efficacy therapy in Argentina: data from the Argentinean registry

Juan I. Rojas¹, Edgar Carnero Contentti², Ricardo Alonso^{3,4}, Dario Tavolini⁵, Marcos Burgos⁶, Belén Federico⁷, Liliana Patrucco¹, Edgardo Cristiano¹.

1-Centro de Esclerosis Múltiple de Buenos Aires (CEMBA), Argentina; 2-Unidad de Neuroinmunología, Servicio de Neurología, Hospital Alemán de Buenos Aires, Argentina; 3-Hospital Ramos Mejía, Buenos Aires, Argentina; 4-Fundación Sanatorio Güemes, Buenos Aires, Argentina; 5- Fundación INECO Oroño, Rosario, Argentina; 6-Hospital San Bernardo de Salta, Argentina; 7-Novartis Argentina S.A., Buenos Aires, Argentina.

SUMMARY

- We compare the BOT and QoL in HET vs. escalation therapy in RRMS in Argentina
 - Multicenter, cross-sectional study that included 269 patients.
 - 136 patients were on early HET while 133 were on escalation therapy
 - Mean BOT score was 43.5±12.2 in HET vs. 54.3±13.3 in escalation (p<0.0001)
- Mean QoL in HET was 81.3±14 vs. 74.1±18.3 in escalation therapy (p=0.0003).
 - Early HET had a significantly lower BOT and higher QoL than escalation therapy

METHODS

This was a cross sectional study conducted between September and December 2022. Participating patients were adults, RRMS patients who initiated (during the last three years) their treatment with a HET (natalizumab, ocrelizumab, rituximab, alemtuzumab, cladribine) or with escalation treatment (beta interferon, glatiramer acetate, teriflunomide, dimethyl fumarate or fingolimod). Clinical and demographic aspect were collected. QoL and BOT was measured with the validated to Spanish MusiQoL and BOT questionnaire. Propensity score (PS)-based nearest-neighbor matching was applied to homogenize groups. Comparisons were be done using a linear regression analysis model stratified by matched pairs, with BOT and QoL assessments as main outcomes. P value < 0.05 was considered significant.

RESULTS

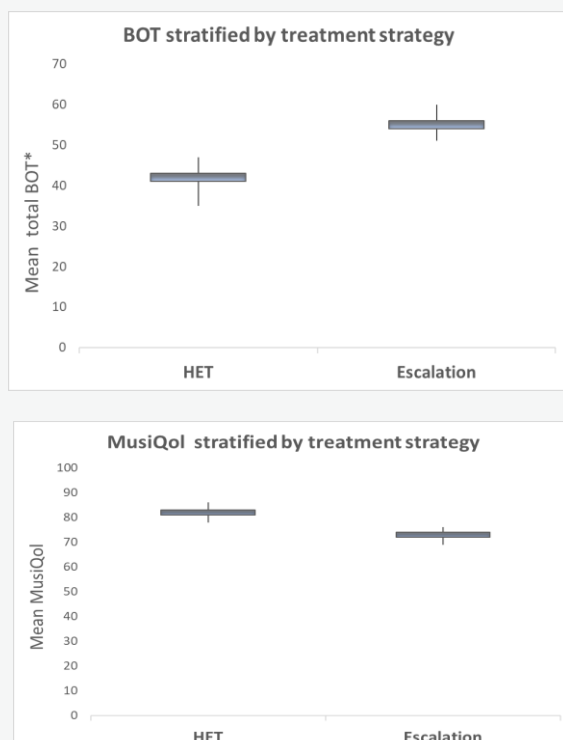
269 patients were included, mean age 33.7±5.7 years, mean disease duration 2.1 ± 0.5 years, 193 (71.7%) were female, median EDSS of 3. A total of 136 patients were on early HET while 133 were on escalation therapy (Table 1).

- **Table 1: Baseline demographic and clinical characteristics of included patients stratified by therapy strategy received**

	Early HET N=136	Escalation therapy N=133	p
Mean age at study entry, years (SD)	31.3 ±3.4	32.0 ±3.6	0.32
Mean disease duration, years (SD)	2.1 ±0.5	2.0±0.3	0.28
RRMS, n (%)	136 (100)	133 (100)	1.0
Female gender, n (%)	102 (75)	96 (72)	.019
Median EDSS, (IQR)	3.0 (2)	3.5 (2)	0.52
Naïve, n (%)	126 (92.6)	114 (85.7)	0.08
First switch treatment, n (%)	10 (7.4)	19 (14.3)	0.58
Second switch treatment, n (%)	0	0	-

In the entire group the BOT (±SD) was 48.5 ± 15.3 while in the group of patients receiving early HET we observed that the BOT (±SD) was 43.5 ±12.2 vs. 54.3 ± 13.3 in escalation treatment (p<0.0001). Regarding QoL (±SD), in the entire sample we observed a global score of 77.4 ±11.2. When we stratified groups, in HET (±SD) it was 81.3± 14 vs. 74.1 ± 18.3 in escalation therapy (p=0.0003) (Table 2).

Figure 1: MusiQoL and BOT stratified by therapy strategy



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INTRODUCTION

- Multiple sclerosis (MS) significantly affects the quality of life (QoL), interfering with a patient's ability to work, pursue leisurely activities, and execute daily life tasks. The benefit of early high efficacy therapy (HET) was postulated not only in a clinical aspect as well as in patient reported outcomes (PRO) perspective

OBJECTIVE

- The objective of this study was to describe and compare the burden of treatment (BOT) and the quality of life (QoL) in early HET vs. escalation therapy in RRMS patients included in RelevareEM, the Argentinean registry of MS (RelevareEM, NCT 03375177).

Table 2: Descriptive data of Quality of life and BOT in the entire sample and stratified by therapy (n=269)

	Early HET (n = 136)	Escalation therapy (n= 133)	P value
Mean Total BOT, (SD)*	43.5 ± 12.2	54.3 ± 13.3	<0.0001
Mean BOT, (SD)	4.4 ± 0.5	6.6±1.0	<0.0001
Subdomains, BOT			
Burden of drug intake, mean (SD)	3.1 ± 1.5	6.1 ± 2.2	<0.001
Burden of medical follow-up, mean (SD)	3.5±0.7	4.0±0.5	0.23
Burden spent on healthcare and social relationships, mean SD	4.2±0.5	5.1±0.5	0.09
Mean MusiQoL, (SD)	81.3 ±14	74.1 ±18.3	0.0003
Subdomains, MusiQoL			
Burden of drug intake, mean (SD)	2.7 ± 0.5	3.3 ± 0.6	0.10
Burden of medical follow-up, mean (SD)	3.6±0.3	3.4±0.5	0.66
Burden spent on healthcare and social relationships, mean SD	4.4±0.6	4.1±0.3	0.19
Mean MusiQoL, (SD)	84.1 ± 11	80.5 ± 9.3	0.31

CONCLUSIONS

In this multicenter study that included 269 patients from Argentina in which 136 were early HET and 133 were patients with escalation therapy we found that:

- The total mean BOT (±SD) in early HET was 43.5 ± 12.2, significantly lower than patients receiving escalation therapy (54.3 ± 13.3, p<0.001).
- Second. the mean BOT score (±SD) in HET was 4.4 ± 0.5 vs. 6.6 ± 1.0 in escalation therapy, significantly lower, showing a decreased BOT in the group of early HET compared with escalation therapy, mainly based on burden on drug intake (3.1 ±1.5 vs. 6.1 ±2.2 p<0.001 in early HET vs escalation therapy respectively).
- Third, the quality of life (±SD) in patients receiving early HET was 81.3 ± 14, significantly higher than patients under escalation therapy (74.1 ±18.3, p= 0.0003).

REFERENCES: Arroyo, R., Sempere, A.P., Ruiz-Beato, E., Prefasi, D., Carreno, A., Roset, M., Maurino, J., 2017. Conjoint analysis to understand preferences of patients with multiple sclerosis for disease-modifying therapy attributes in Spain: a cross-sectional observational study. *BMJ Open* 7(3), e014433.

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