Intrathecal oligoclonal bands synthesis: is it always a prognostic factor?

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Background. The presence of oligoclonal IgM bands (OCMB) was found associated with poor MS prognosis in adult MS patients. (1,2) These data were validated in independent cohorts (3). Oligoclonal IgG bands (OCGB) also associate with an earlier disability progression in MS (4). The intrathecal immunoglobulin synthesis (ITMS) has recently shown to associate with the genetic background in MS. The aim of our study was to evaluate the prognostic value of ITMS in a big cohort of Sardinian patients.

Materials and methods.

We recruited patients from the Multiple Sclerosis Centre of the University of Cagliari. They underwent lumbar puncture for diagnostic purposes. Demographic and the following clinical data were recorded: clinical course; time to reach EDSS 3 and 6; EDSS at last follow-up; MS treatments. The influence of gender, clinical course, age at onset, treatments, and OCGB/OCMB on reaching EDSS 3 was analysed using Cox regression. Kaplan-Meier curves were used to study the time to reach EDSS 3 considering OCMB/OCGB and therapies.

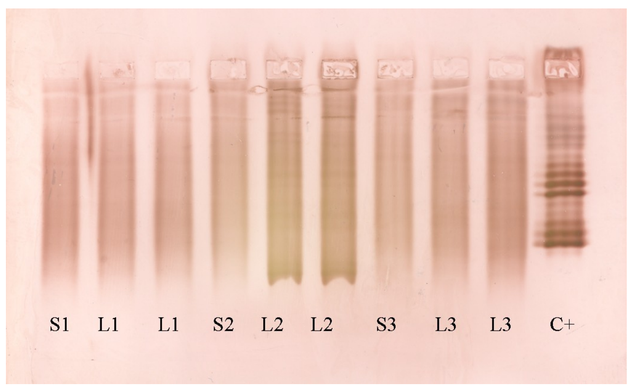


Table 1

Total patients included	**503**	
Gender (F/M)	337 (67%)	166 (33%)
Clinical Course	RR 479 (95%)	PP 24 (5%)
Age at onset (mean/SD)	34 years	11 years
Age at LP (mean/SD)	38 years	12 years
Last EDSS (mean/SD)	2	1.8
Achievement of EDSS 3	125 patients	
Achievement of EDSS 6	6 patients	

Results

The enrolled subjects were 503. Clinical features are summarized in Table 1 and 2.

Four-hundred and sixteen patients started a DMD after mean 4 years (SD: 6) from the onset of the disease (median 1 year, range 0-44). The treatment was started in the frst 24 months of disease in 210, and 65 subjects needed an aggressive therapy in lifetime.

The variables influencing the achievement of EDSS 3.0 were: male gender (p=0.005); progressive course (p=0.001); age at onset (p<0.001); disease-modifying drugs (p<0.001). The OCGB/OCMB status was not significant. Kaplan-Meier analysis showed no difference in time to reach EDSS 3 for patients with and without OCGB or OCMB in both treated and non-treated groups (Figure 1 and 2).

Table 2

Total patients	**503**
IgM	105 (20,8%)
IgG	422 (83,8%)
IgM+IgG	98 (19,4%)

Figure 1

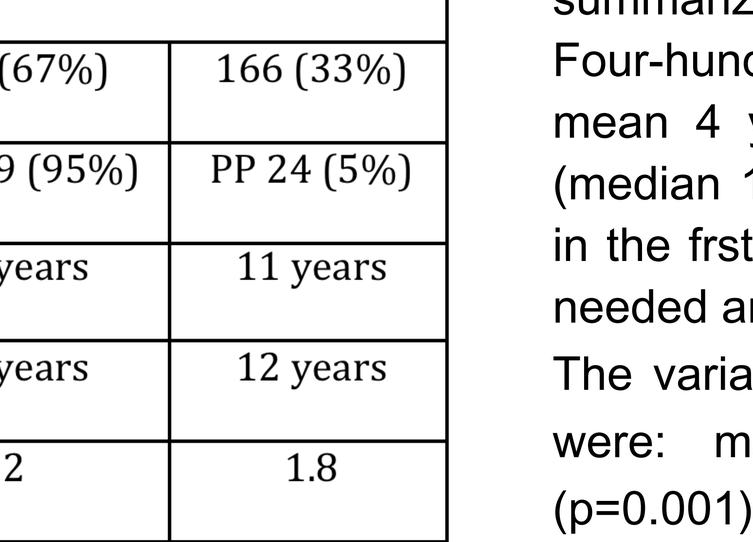
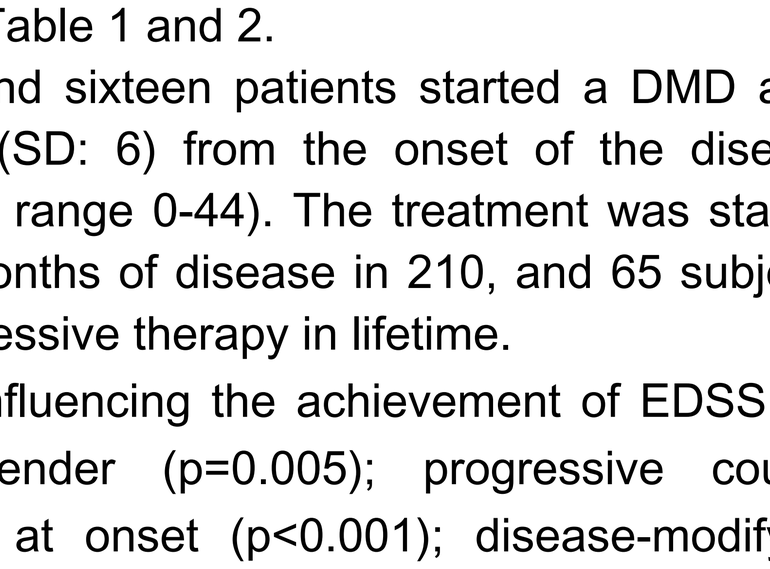


Figure 2



Conclusions

Our study did not confirm the poor prognostic value of OCMB/OCGB. These results may be influenced by the peculiar genetic background associated with the risk of MS in Sardinians.