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Effectiveness of anti-CD20 therapies after natalizumab

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Introduction:

Natalizumab is a highly effective MS treatment with a high risk of developing PML in JCV positive patients. Therefore, switching to other treatments is necessary in many cases, despite the risk of increasing disease activity, even with other highly effective treatments, such as anti-CD20 therapies.

Objectives/Aims:

To evaluate the effectiveness of anti-CD20 therapies after natalizumab switch.

Methods:

Retrospective study, including MS patients that switched from natalizumab to anti-CD20 therapies: rituximab (RTX), ocrelizumab (OCR) and ofatumumab (OFA). Demographic, clinical and safety data were evaluated.

Results:

Included 59 patients, 69.5% female, 91.5% RRMS, with mean age at natalizumab switch of 39.33 years.

In the subgroup of RTX (n=23), 21.7% switched due to inefficacy. After a mean treatment duration of 48.57 months, there was a significant reduction in annualized relapse rate (ARR, 0.65 vs. 0.08, p=0.007), but 43.5% showed disease activity after a mean time of 15.2 months. There was no disability progression in 73.9%, however at the end of follow-up there was a significant increase in mean EDSS (3.65 vs. 5.15, p=0.022). The disability progression was independent of relapse activity (PIRA) in half of the patients. RTX was stopped in 39.1% of the patients, 66.7% due to inefficacy. In the subgroup of OCR (n=29), most patients switched for safety concerns (96.6%). After a mean treatment duration of 18,79 months, only 13.8% showed disease activity after a mean time of 18 months. There were no significant changes in ARR (0.03 vs. 0.07), or EDSS (2.4 vs. 2.52), with disability worsening reported in 10.3% of patients, all cases related to PIRA. OCR was stopped in 13.8%, due to inefficacy (50%). In the subgroup of OFA (n=7), all cases switched for safety concerns, without relapses in the previous year. After a mean treatment duration of 6.86 months, there were no relapses reported and no significant changes in mean EDSS (2.0 vs. 2.14), with PIRA being reported in 1 patient. All patients continue OFA.

Conclusion:

In our population,** anti-CD20 therapies were effective treatment options after natalizumab switch. With a very low ARR reported in all subgroups, in our population the main reason for EDSS progression was PIRA.

Disclosures:

Inês Correia, Carla Nunes, Carmo Macário and Sónia Batista have received consulting fees from Biogen, Merck Serono, Novartis, Sanofi Genzyme, Bristol Myers Squibb, Roche, and Janssen. Carolina Cunha, Sara Matos, Inês Carvalho, João Cardoso, Isabel Campelo and José Feio have no conflicts of interest to declare. Lívia Sousa has received consulting fees from Biogen, Merck Serono, Novartis, Sanofi Genzyme, and Roche.