Immunomodulatory therapy in 5798 relapsing-remitting Multiple Sclerosis (RRMS) patients over time under special consideration of switching to oral DMD: a retrospective data analysis

A. Bergmann[1], S. Braune[1], K-H. Gösswein[1], T. Ziemssen[2]

1 **N**euro**T**rans**D**ata Study Group, Neuburg (Germany)
2 Neurologische Klinik und Poliklinik Universitätsklinikum Carl Gustav Carus an der Technischen Universität Dresden

Background

NeuroTransData (NTD), a German neurology network of 76 sites, collects real world data since 10 years in a specific MS database with more than 21,000 patients.

Objective

Longitudinal assessment of MS patients on injectable DMD who switched to oral DMD and other DMDs.

Patients and Methods / Material and Methods

RRMS-patients stable on injectable DMDs (Avonex^{R}, Rebif^{R}, Betaferon/Extavia^{R}, Copaxone^{R}) for 4 years (median) were analyzed for 4.7 years (median) regarding clinical course and potential switch to oral and other treatments.

	Avonex® n=359	Rebif® n=622	Betafe®/Extav®, n=482	Copaxone®, n=664
Gender (f / m)	76 % / 24 %	71 % / 29 %	72 % / 28 %	78 % / 22 %
Age (y)	39.6	40.8	42.6	42.9
Disease duration (y)	7.8	7.5	8.5	8.8
Treatment period (y)	2.4	3.0	2.6	2.9
EDSS before switch	2.0	2.0	2.0	2.0

Table 1: Baseline characteristics of RRMS patients switching from different injectable to oral DMDs. f: female; m: male; age/disease duration/treatment period on average in years; EDSS: median on the Expanded disability status scale.

Results

2127 (37.7%) of these 5798 patients were switched to oral DMD. The other patients stayed on their DMD for 4.6 years (median). The main reasons for switching were insufficient therapeutic effect (34%), side effects (18.2%) and patient's wish (19.4%). After 1.2 years (median), 408 (19.2%) of these already switched patients were switched once again to another DMD, 92 (22.6%) switched back to their first DMD. 1578 patients (74.2%) remained on their first switch therapy. Observation period was 2.8 years (median).

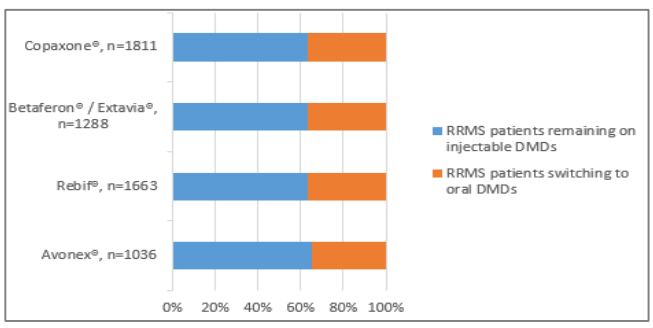

Fig. 1: RRMS patients remaining on injectable DMDs respectively switching to oral DMDs in percent in the different therapeutic groups.

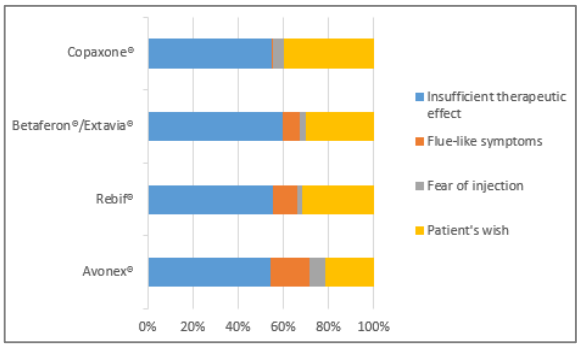

Fig. 2: Main reasons in percent for switching from injectable to oral DMDs among different therapeutic groups.

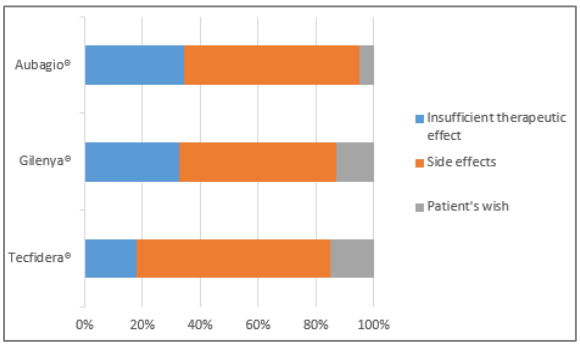

Fig. 3: Main reasons in percent for second switch from oral DMDs to another disease-modifying therapy.

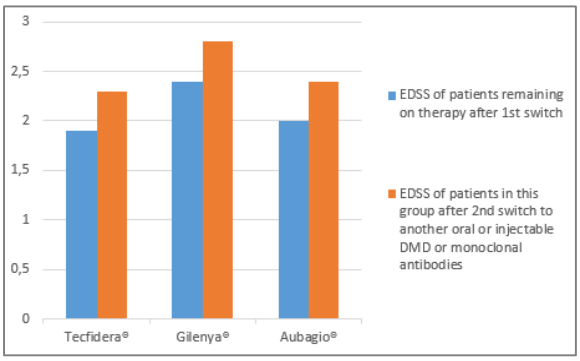

Fig. 4: Last EDSS (median) in observation period of RRMS patients remaining on therapy after first switch respectively after second switch from oral DMDs to another disease-modifying therapy.

Conclusion

The main reason for switching from injectable to oral DMD was the therapeutic effect, followed by patient's wish and side effects. In those patients who switched a second time, side effects were the main reason for switching. Most patients (74.2%) who switched from injectable to oral DMDs remained on that therapy during the observation period.

Disclosures: A. Bergmann has received honoraria for consultancy and lectures, research and travel grants from Biogen, Genzyme, Merck, Novartis, Servier and Teva; S. Braune has received honoraria for lectures, research and travelgrants from Almirall, Bayer Schering Pharma, Biogen Idec, EMD Merck Serono, Genentech, Genzyme, Novartis, Sanofi-Aventis and Teva Pharmaceuticals; K.H. Gößwein has no disclosures to declare; T. Ziemssen has received honoraria for lectures, research and travelgrants from Biogen, Genzyme, Merck, Novartis and Teva.