CYCLE PHARMA

Research Summary of *Clinical and Radiological Implications of Subpotent Generic Fingolimod in Multiple Sclerosis: A Case Series*

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Introduction

As of November 2024, there are 15 generic fingolimod capsules commercially available in the US, all AB-rated to Novartis' 0.5 mg Gilenya® (fingolimod) capsules.[1] As more patients are being switched to generic fingolimod capsules at the request of their insurance providers, cases of relapse following the switch have been reported.[2]

Are all generic fingolimod capsules the same quality and consistency as branded products?

In 2023, two studies published in *Multiple Sclerosis and Related Disorders* (MSARD) provided evidence that validated concerns around the quality of generic fingolimod capsules, and their potential clinical implications.

One study tested four FDA-approved generic fingolimod capsules, and found that two of the four generic products were substandard, containing only 76.8% and 85.5% of the labeled dosage.[3] A separate study reported more disease advancement and higher frequency of side effects in patients after they switched from Gilenya® capsules to generic fingolimod capsules.[4]

About the Study

This new study demonstrates the connection between subpotent generic fingolimod capsules and relapse events following a medication switch from Gilenya® capsules to generic fingolimod capsules.[5]

This observational study was conducted at the University of Texas Southwestern (UTSW) Medical Center (Dallas, Texas), between January and August 2024.

Six individuals with relapsing-remitting MS who (1) recently experienced a relapse, (2) were previously treated with Gilenya® capsules before being switched to generic fingolimod, and (3) were taking generic fingolimod capsules at the time a relapse was identified.[5]

All six individuals were relapse-free from 6 months after starting treatment on Gilenya® capsules up until their switch to generic fingolimod capsules.[5]

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Results

Among the six individuals, four clinical relapses and two MRI relapses without symptoms were recorded, see Table 1. An increase in absolute lymphocyte count was also observed in all six individuals after their switch to generic fingolimod capsules. These results suggest that the generic medication they received was less effective in preventing the egress of lymphocytes, which could lead to disease breakthrough.[5]

To determine whether these findings could be related to the fingolimod content in the generic products, generic fingolimod capsules were retrieved from three of the six individuals. Ten capsules were randomly selected from each person for testing. Results from the assay test revealed that the average fingolimod content was 91.2%, 81.6% and 72.5% of the labeled dosage.[5]

Table 1. Summary of MS history, clinical outcomes and fingolimod assay by person.[5]

Person	MS and Treatment History (years)			Average Absolute Lymphocyte Counts ($\times 10^6$/L)		Relapse Type	Average Fingolimod Content (% of Label)
	Time from First MS Symptom	Time on Gilenya® Prior to Switch to Generic Fingolimod	Time from Starting Generic Fingolimod to Relapse	Treated with Gilenya®	Treated with Generic Fingolimod		
Person A	18.07	3.59	0.91	442	581.5	Spinal cord	*N/A*
Person B	15.94	11.34	0.35	292	780	Spinal cord	91.2%
Person C	12.32	3.88	0.89	584	753	MRI relapse	81.6%
Person D	24.64	11.29	0.62	269	1030	Long tract motor	72.5%
Person E	12.11	6.56	0.96	280	385	MRI relapse	*N/A*
Person F	22.35	0.84	1.17	258	415	Spinal cord	*N/A*

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Key Takeaways

Based on the experience of six individuals who all developed clinical or radiological signs of relapse at around one year after switching from Gilenya® capsules to generic fingolimod capsules, this study connects patients' suboptimal clinical outcomes to substandard generic fingolimod capsules.[5]

Given the availability of generic fingolimod capsules, all AB-rated to Gilenya® capsules, patients can be switched to any one of the 15 approved generic fingolimod capsules for non-medical reasons (e.g. insurance coverage, and pharmacy inventory), and without their doctor's consent. Furthermore, there is evidence of a patient having received medication from 3 different generic manufacturers in one 30-day refill.[5]

The lack of certainty surrounding the quality and integrity of generic fingolimod is creating additional clinical challenges, particularly when monitoring and understanding disease breakthrough in patients with MS. Without knowing if disease breakthrough is due to subpotent medication or inadequate disease control, patients may be unnecessarily switched to a higher efficacy medication, and, in turn, be at increased risk of adverse reactions. For patients stable on fingolimod these practices can be detrimental, exposing them to avoidable risk of clinical relapse.[5]

To read the full study, including MRI data from each individual, you can access the paper here: *Therapeutic Advances in Neurological Disorders*.

References

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