Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: https://reachmd.com/programs/neurofrontiers/using-ai-to-predict-ms-progression/26758/

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Using AI to Predict MS Progression

Announcer:

Welcome to *NeuroFrontiers* on ReachMD. On this episode, we'll discuss how AI can be used to predict multiple sclerosis with Dr. Arman Eshaghi. Not only is Dr. Eshaghi a National Institute for Health and Care Research Advanced Fellow at University College London, but he also presented a session on this exact topic at the 2024 Congress of the European Committee for Treatment and Research in Multiple Sclerosis. Here's Dr. Eshaghi now.

Dr. Eshaghi:

The upcoming session at ECTRIMS 2024 is going to focus on how we can use the data that's generated, usually during the care of patient's multiple sclerosis, to provide more information both to patients, but also to doctors about what the future will hold. Specifically in MS, patients receive a lot of scans and brain images, or what we call MRI scans, and one of the biggest questions because of the vast amount of data that's acquired during these scans is how we can best use those data nowadays, using AI, but also different technologies to tell people living with MS and also their physicians and the doctors how the future may change depending on treatments they may receive or also how long it may take an individual to become more disabled as the MS progresses.

So we do have FDA-approved software solutions by different commercial companies in the U.S., in Canada, and also in Europe, and elsewhere. But none of those are actually used for what we call prognosis or predicting outcomes. But the idea here is to look at the future and how these technologies can add not just understanding brain images or spinal cord images, but telling patients more about the future. Imagine the patient may use this information to plan their future, to plan, for example, a pregnancy, especially many patients we have are younger adults and younger women who are planning to have a family. And also for older people living with MS how the disease may evolve. That's extremely important information, of course, to the doctors and physicians how this extra information can help both them and patients to choose the best line of treatment.

The AI we use have been looking at the research data, so we want to translate this to help patients in a healthcare setting, in a hospital setting; the kinds of data that they use, what we call models, that they have been trained on are very different.

The other area is that we do have a lot of bias in the healthcare data that will include underrepresentation of certain ethnic minorities or when we look at clinical trials, under-representations of women of, again, ethnic minorities. These kinds of social biases are not inherent to AI, but they are somehow propagated when we use AI models because they look at a very large scale.

Announcer:

That was Dr. Arman Eshaghi discussing his presentation at the 2024 Congress of the European Committee for Treatment and Research in Multiple Sclerosis, which focused on the use of AI to predict multiple sclerosis. To access this and other episodes in our series, visit *NeuroFrontiers* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!