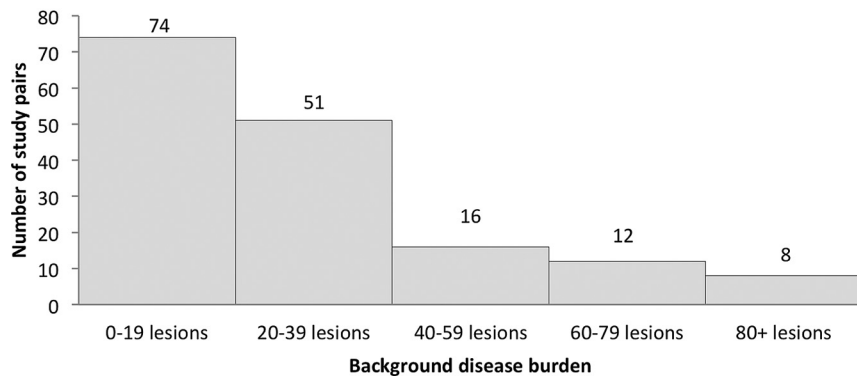**ON-LINE FIG 1.** Examples of lesions that were missed on routine reporting but were found by using the software. Each row represents a different patient, with the change map demonstrating changed lesions in the left column (new lesions in orange and improved lesions in green), the current study in the middle column, and the previous comparison study on the right. *A*, New deep white matter plaque. *B*, Improved lesion deep white matter demonstrates a "doughnut" appearance of a concentrically shrinking lesion. *C*, Juxtacortical new plaque. *D*, Periventricular new plaque. *E*, Combined large improving lesion (green) with an adjacent new lesion (orange).

Approximate background disease burden seen in the assessed study pairs

ON-LINE FIG 2. Distribution of background lesion burden observed in the assessed study pairs.

On-line Table 1: Categorization of study pairs using both conventional side-by-side comparison and the software

	CSSC	VTS
Stable[a]	31	29
Progressive[b]	11	14
Discordant[c]	1	0
Total	43	43

[a] All study pairs categorized as stable using VTS were also categorized as stable using CSSC. Both reads found no new lesions.
[b] Both reads found at least 1 new lesion.
[c] One read found at least 1 new lesion, while the other read found no new lesions.

On-line Table 2: Breakdown of retrospective management change by referring neurologists

Retrospective Management Plan Change	Breakdown of Retrospective Management Changes
Change in imaging follow-up interval	19% (7/37)
Change in medication regimen	35% (13/37)
Change in medication regimen and imaging follow-up interval	8% (3/37)
Change in clinical and imaging follow-up interval	8% (3/37)
Change in clinical and imaging follow-up interval and medication regimen	30% (11/37)