## Figure Legend.

**Figure 1:** Spinal cord outline using the active surface model on the axial FFE images acquired at baseline in two patients with lesions (top two rows) and two patients with lesions (bottom two rows).

**Figure 2:** Sagittal PD image at baseline (A), and spinal cord outline at baseline (B) and 1 year follow-up (C) with reduction in SC-CSA over time in a subject with PPMS (47 year old male, baseline: EDSS 4.0, cord area = 85.95mm<sup>2</sup>; 1 year: EDSS 6.0, cord area = 82.37mm<sup>2</sup>).