Title of the Contribution:
Age-related cerebral perfusion changes in the parietal and temporal lobes measured by pulsed arterial spin labeling.

Abstract:
To investigate age-related regional perfusion changes focused on the medial temporal lobes and related parietal areas using a pulsed arterial spin labeling technique. Resting cerebral blood flow (CBF) maps were obtained from 44 healthy volunteers (18 male, 26 female; age range, 19 to 79 years) using a pulsed arterial spin labeling (PASL) MRI technique at 3 Tesla focused on the parietal and temporal lobes. Repeated measurements were performed in 20 subjects to assure the reliability and reproducibility of the applied PASL technique. Focal age-related CBF decreases were detected in the parietal cortex, cuneus and caudate, whereas increases were seen in the lateral and medial temporal lobe such as hippocampus, the calcarine gyrus and the thalamus. Moreover, repeated measurements demonstrated a high reliability and reproducibility of the applied PASL technique. Data provide evidence for regionally dissociated patterns of perfusion increases and decreases during ageing in the temporal and parietal lobes.