

A4 Volumetric MRI Methods

James Brewer
University of California, San Diego

Methods

The 3D T1-weighted MRI scans were processed using NeuroQuant (NQ) (<http://www.cortechslabs.com/neuroquant>), a fully-automated segmentation software which has been cleared by the FDA for clinical use. In brief, NQ first performs quality control to check for severe patient motion and other artifacts. Then, a personalized age- and gender- specific atlas is derived for each subject. This personalized atlas is employed to perform automated segmentation and volume calculation from each subject's scan. Regional volumes are reported.

In addition to segmental volume calculation, NQ also computes a Hippocampal Occupancy (HOC) Score, the ratio of hippocampal volume to the sum of hippocampal and inferior lateral ventricle volumes. The HOC serves as a proxy for medial temporal atrophy.