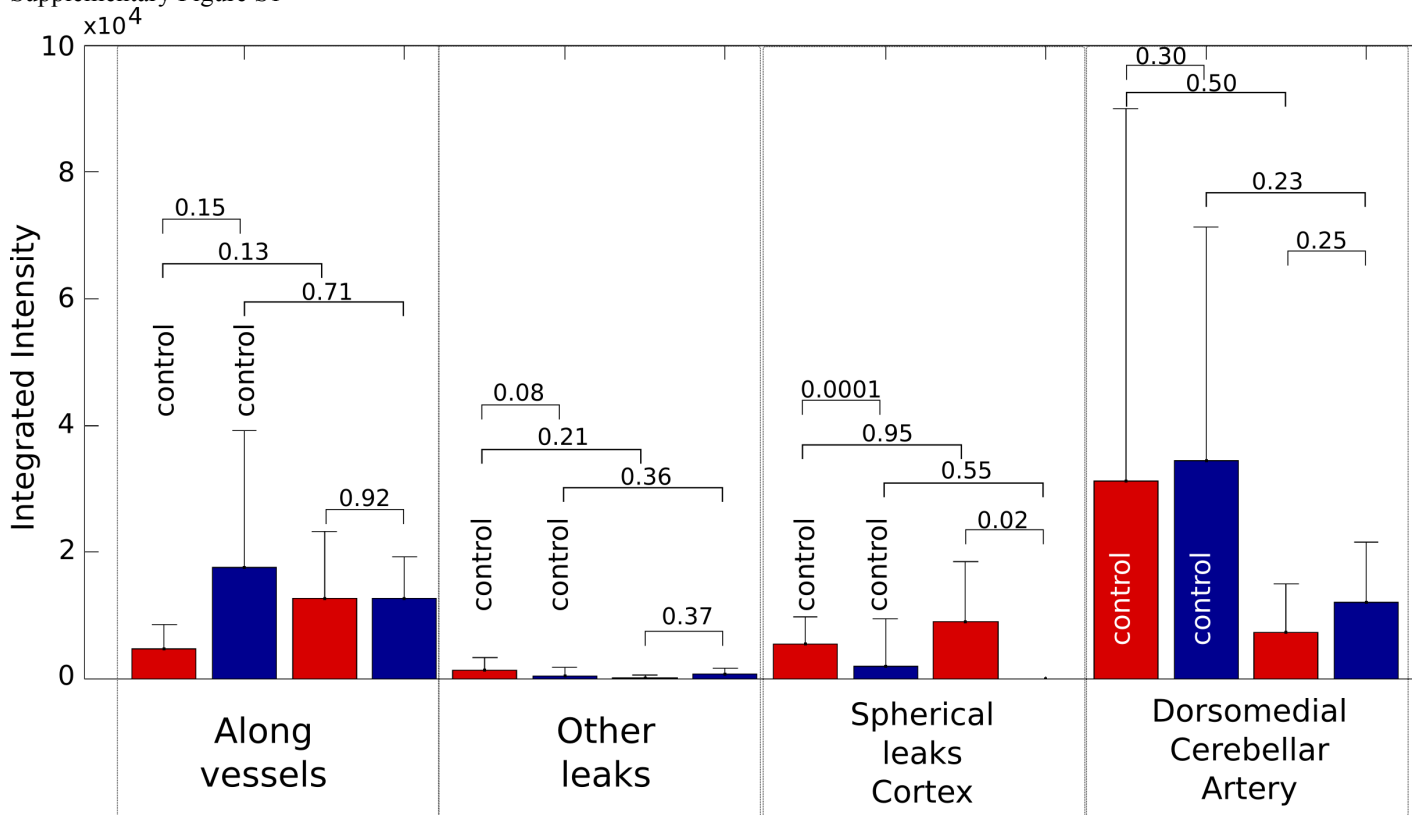
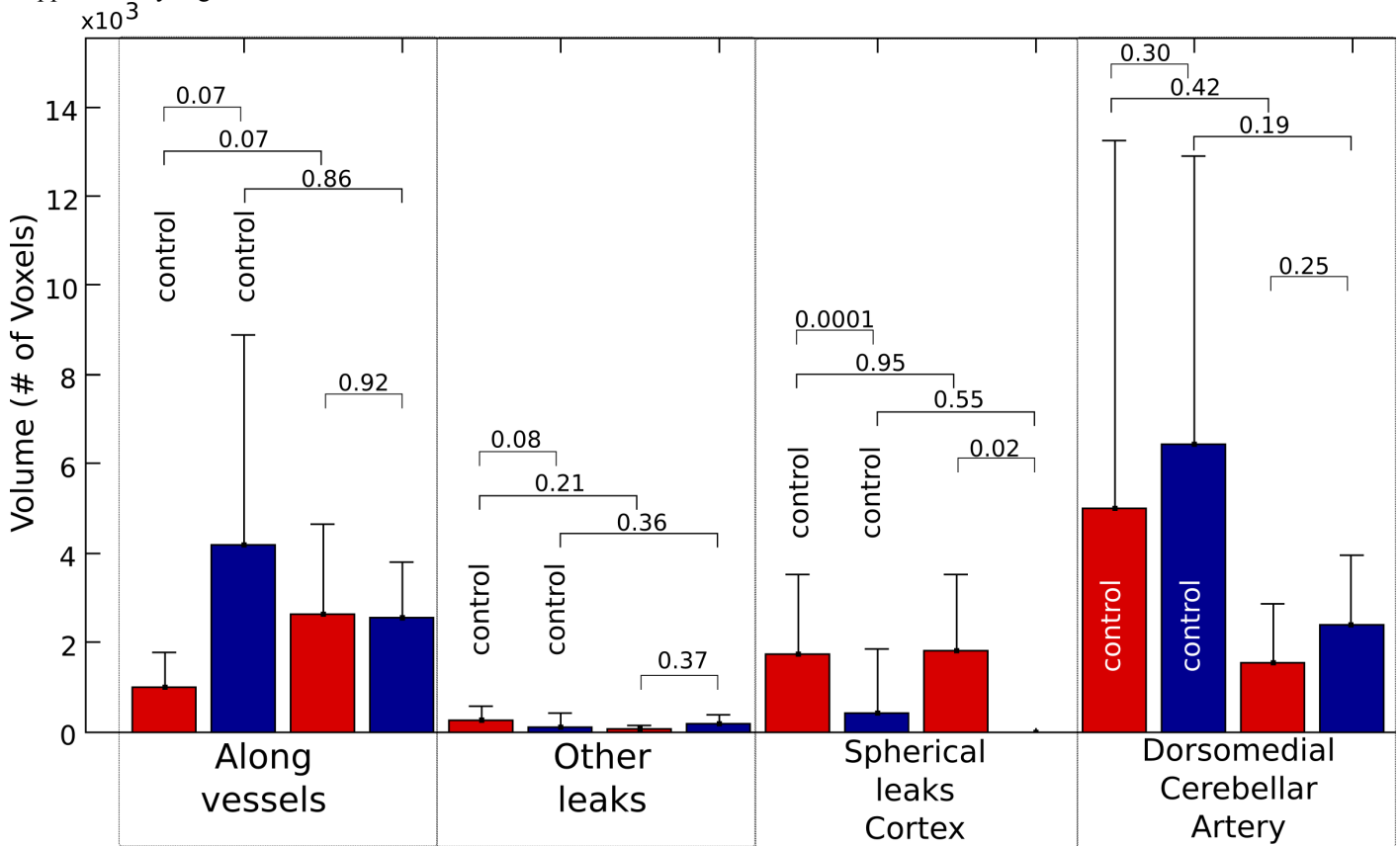


Supplementary Figure S1



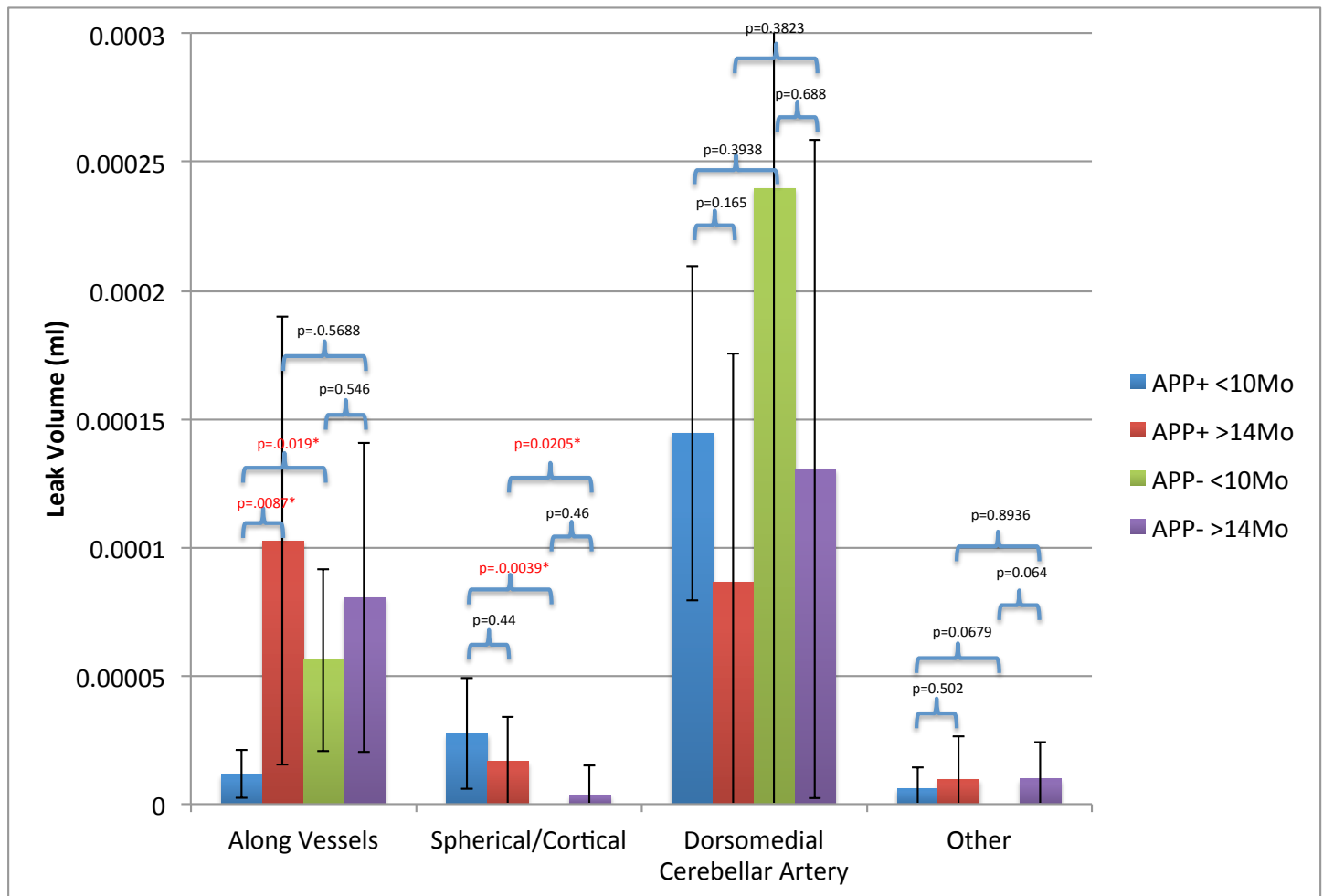
Supplemental Figure S1. Integrated intensity of vascular leaks (\pm SD) as measured by nanoparticle contrast extravasation. Red bars: APP+, Blue bars: APP-. Each group of 4 bars has two radiation control groups that did not undergo pre-contrast scanning (left, labeled as control) and two treatment groups that did undergo pre-contrast scanning (right). The numbers of animals in each group were as follows: APP+ radiation control: n=9; APP- radiation control: n=14; APP+: n=5; APP-: n=5.

Supplementary Figure S2



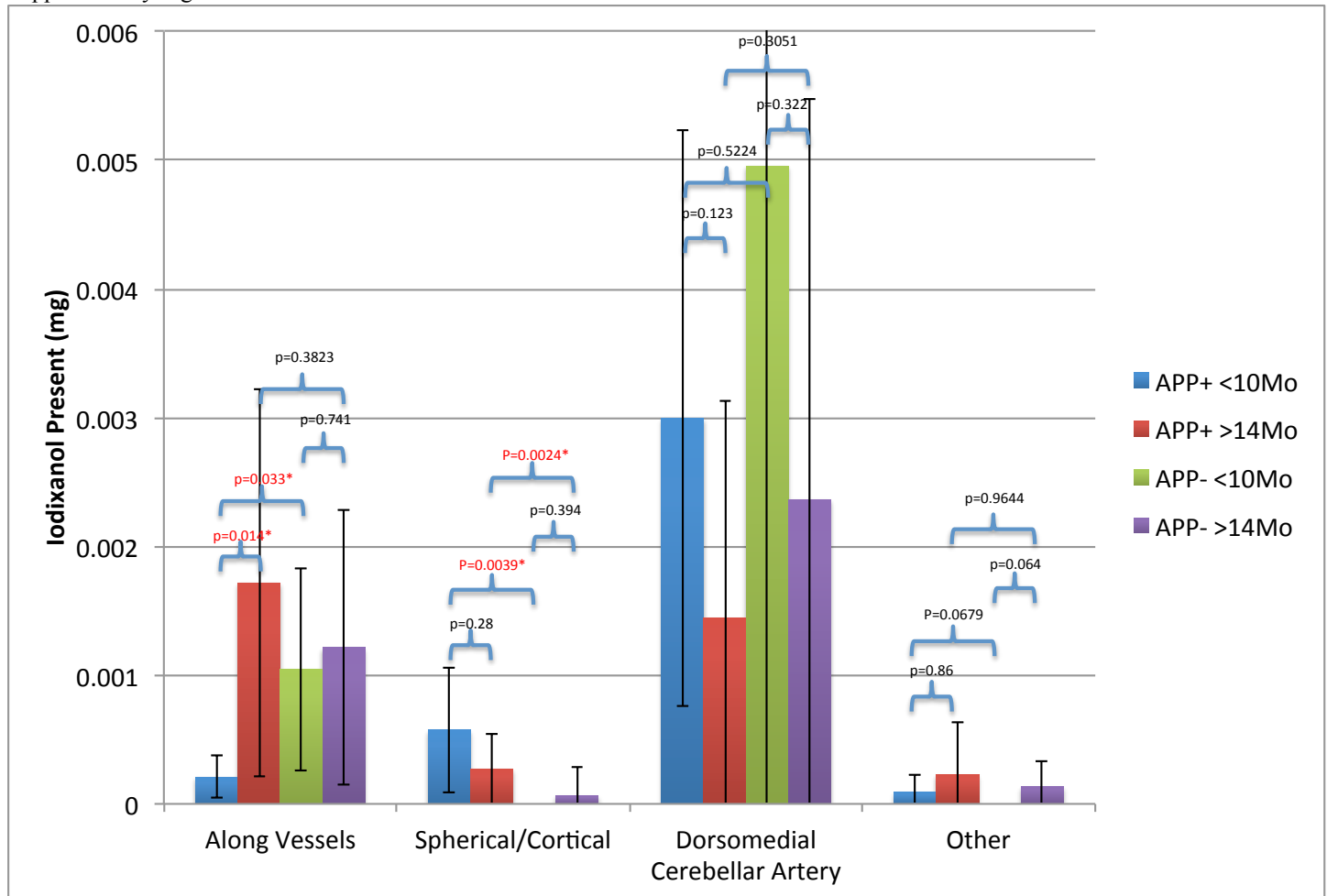
Supplemental Figure S2. Volume of vascular leaks (\pm SD) as measured by nanoparticle contrast extravasation. Red bars: APP+, Blue bars: APP-. Each group of 4 bars has two radiation control groups that did not undergo pre-contrast scanning (left, labeled as control) and two treatment groups that did undergo pre-contrast scanning (right). The numbers of animals in each group were as follows: APP+ radiation control: n=9; APP- radiation control: n=14; APP+: n=5; APP-: n=5.

Supplementary Figure S3



Supplemental Figure S3. Volume of vascular leaks (\pm SD) measured by nanoparticle extravasation. Data is separated by age of mice. Blue: APP+ <10Mo (n=4). Red: APP+ >14Mo (n=9). Green: APP- <10Mo (n=6). Purple: APP- >14Mo (n=11). Statistically significant differences in spherical/cortical leaks are found between genotypes in both age groups, while no differences are found due to age alone. Vascular leaks along vessels other than the DMCA are significantly different as a function of genotype in the young group, and as a function of age in the APP+ group. No other differences are noted between any of the groups.

Supplementary Figure S4



Supplemental Figure S4. Iodixanol present in the leaks, measured by calibration of X-ray attenuation. Data is separated by age of mice. Blue: APP+ <10Mo (n=4). Red: APP+ >14Mo (n=9). Green: APP- <10Mo (n=6). Purple: APP- >14Mo (n=11). Statistically significant differences in spherical/cortical leaks are found between genotypes in both age groups, while no differences are found due to age alone. Vascular leaks along vessels other than the DMCA are significantly different as a function of genotype in the young group, and as a function of age in the APP+ group. No other differences are noted between any of the groups.

Supplemental Movie M1. False-color volume rendering shows vascular structures, leaks, and calcospherites in an APP+ mouse. Bone is depicted in white, blood vessels in red, calcospherites in purple-black, and vascular leaks in green. A spherical cortical leak is visible around 15-16 seconds in the upper left quadrant; choroid plexus leaks are visible at 38 seconds and 54 seconds. All other leaks are associated with proximal vessels. Viewed as a movie, this file provides a quick overview of the types and locations of leaks and calcospherites. Viewed frame-by-frame through the image stack, this file provides detailed localization of various features detected by CT.