

Sex differences in the human corpus callosum: diffusion tensor imaging study.

Shin YW, Kim DJ, Ha TH, Park HJ, Moon WJ, Chung EC, Lee JM, Kim IY, Kim SI, Kwon JS.

Neuroscience Institute, SNU-MRC, Seoul, Korea.

In order to assess underlying structural differences between the male and female corpus callosum, the fractional anisotropy and volume of the corpus callosum, and also its T1 signal intensity, were measured. The corpus callosum of the 15 normal women and 15 normal men was drawn on the mid-sagittal T1-weighted image, for determining its volume and signal intensity, and this region of interest was projected onto the coregistered fractional anisotropy image, in order to obtain the value for the corpus callosum. We found increased T1 signal intensity and decreased fractional anisotropy in the female corpus callosum, as compared with that of the male. Despite the long-standing debates, the corpus callosum remains a region of sex differences.

PMID: 15891572 [PubMed - indexed for MEDLINE]