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PO115 - (24022) - COMPREHENSIVE MORPHOMETRIC ANALYSIS OF THE CORPUS CALLOSUM IN THE ADULT SOUTH INDIAN POPULATION:

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The corpus callosum (CC) is the largest commissural fibre in the human brain, crucial for inter-hemispheric communication. Morphometric studies of the CC provide valuable insights into brain structure and function, but population-specific data for Indian adults are limited

Thirty formalin-fixed sagittal sections of adult South Indian brain specimens were examined using vernier calipers. Measurements included the longitudinal length of the brain and CC, distances between various landmarks such as the frontal pole, genu, splenium, and occipital pole, as well as relationships to the central and parieto-occipital sulci.

The mean longitudinal brain length was 14.8 ± 0.8 cm, while the CC length was 7.5 ± 0.4 cm. The ratio of brain length to CC length was 1.9 ± 0.1. The distance from the frontal pole to genu (2.8 ± 0.3 cm) was shorter than from the occipital pole to splenium (5.3 ± 0.6 cm). Consistent ratios were observed between various measurements, providing baseline data for the South Indian population.

This study establishes normative data on CC morphometry in adult South Indian brains, revealing potential racial and ethnic variations when compared to previous studies. These findings contribute to the understanding of CC anatomy and may serve as a reference for future clinical and neuroimaging studies, particularly in the context of various neurological and psychiatric conditions affecting CC structure.

Palavras-chave : Morphometry, Neuroimaging, Brain Mapping