Intercommissural line

The intercommissural line joining the anterior and posterior commissures defines stereotactic coordinate systems used in functional neurosurgical procedures. Such coordinate systems are generally accepted in humans and nonhuman primate experimental settings and provide high stereotactic precision and reproducibility. The ethical concern surrounding the use of nonhuman primates has motivated and helped popularize the use of the Göttingen minipig as an alternative experimental model for experimental functional neurosurgery. We investigated the position and variability of the intercommissural line in the minipig brain using in vivo MRI. From these data, standard coordinates for the minipig basal ganglia were estimated. We found the variability of the intercommissural line to be small in the Göttingen minipig and the variability of the basal ganglia structures to the mid-commissural point to be minor [1)].

1)
Rosendal F, Chakravarty MM, Sunde N, Rodell A, Jonsdottir KY, Pedersen M, Bjarkam C, Sørensen JC. Defining the intercommissural plane and stereotactic coordinates for the Basal Ganglia in the Göttingen minipig brain. Stereotact Funct Neurosurg. 2010;88(3):138-46. doi: 10.1159/000303526. Epub 2010 Apr 1. PubMed PMID: 20357521.