Imagens em NEUROLOGIA

THE FORNIX: FROM REAL TO VIRTUAL DISSECTION

O FORNIX: DA DISSECÇÃO REAL PARA A VIRTUAL

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The fornix is a complex assemble of bidirectional fibers arcing around the thalamus, and connecting the hippocampus with the mammillary bodies (post-commissural fornix), and the septal and neighboring areas (pre-commissural fornix). It comprises a pair of anterior (columns) and of posterior (crura) limbs, the latter being interconnected by a commissure, and a body. The fornix is part of the limbic system and a component of Papez circuit, and appears to play an important role in memory integration[1,2]. This structure was first identified and named (Greek: ψαλίδας [arch, vault]) by Galen in brains of animals (c. 177), and over a millennium later was named (Latin: *testudo* or *fornix* [turtle or fornix]), and further described and depicted, although in an incomplete way, in human brains by Vesalius (1543)[3].

The fornix was well enough (despite some inaccuracies) dissected , described, and depicted by Solly (1848) (inferior longitudinal commissure or fornix – Fig. 101)[4] (Figure 1). The tractography technique, bases for virtual dissection, appeared in 1992, and in the following years such kind of investigation was implemented[5]. A tractographic study of the fornix is here presented (Figure 2).

Figure 1. Solly's "real dissection" of the fornix of the human brain (Figure 101): B. Corpus mammillare. C. Anterior pillars of fornix [columns]. E. Body of fornix. F. Taenia hippocampi or descending fibers of the fornix [crus]. G and H. Fibers covering the hippocampus [alveus]. S. thalamus[4].

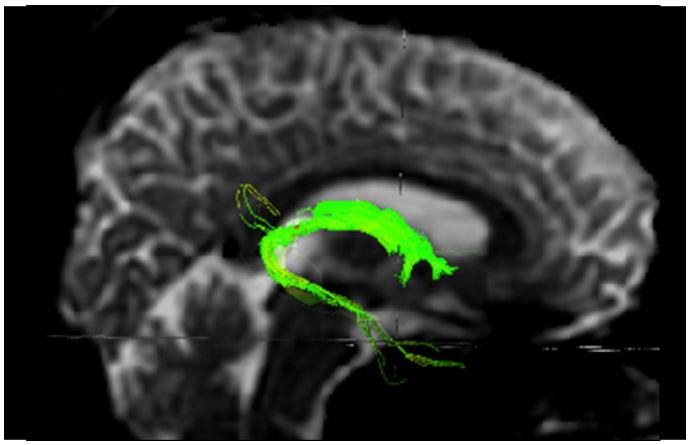

Figure 2. Fornix tractography - a "virtual dissection" (adapted from Engelhardt and Moreira, 2008, with permission of the RBN [2008;44(4):19-34]) (lateral view).

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