Anterior sylvian point

The anterior sylvian point (ASyP) is a craniometric point that divides the lateral sulcus in its main anterior and posterior rami.

It is one of the widest portions of the sylvian fissure.

Limits

Superior:Pars triangularis

Inferior:Superior temporal gyrus (T1)

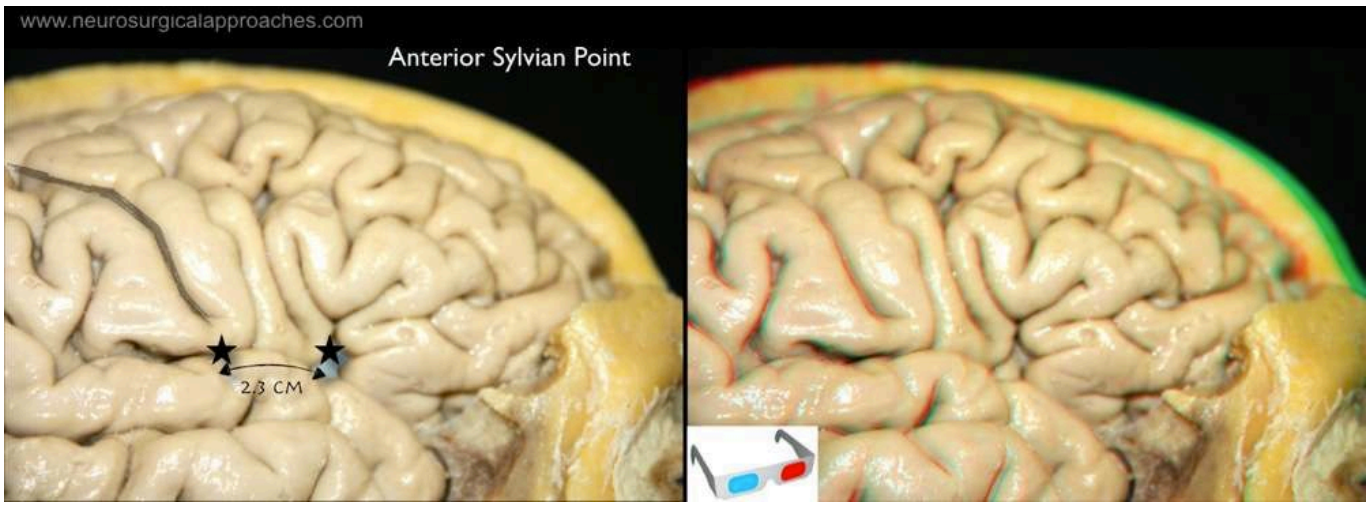
Posterior:Pars opercularis

Anterior:Pars orbitalis.

The ASyP had a cisternal aspect in 94% of the specimens and was always located inferior to the triangular part of the inferior frontal gyrus, 0.5 cm in front of the inferior rolandic point. The ASyP was located underneath the 1.5-cm-diameter cranial area of the anterior aspect of the squamous suture. Its adjoining structures that compose the suprasylvian operculum have constant basic morphological configurations.

The ASyP underlies the anterior aspect of squamous suture just behind the pterion, can be easily recognized, and constitutes a reliable initial sulcal landmark for further estimation of the suprasylvian sulcal and gyral structures. The suprasylvian operculum can be understood as a series of convolutions roughly arranged as a V-shaped convolution, with its vertex constituted by the ASyP, followed by three U-shaped convolutions and one C-shaped convolution [1)].

The ASP is an enlargement of the sylvian fissure (SyF) just inferior to the triangular part and anterior to the opercular part of the inferior frontal gyrus (IFG) and is the best starting point for the SyF opening. The ASP can usually be recognized because it has a cisternal aspect and a constant location. The superior and inferior margins of the SyF constitute the frontoparietal and temporal operculi, which cover the superior and inferior aspects of the insula. The suprasylvian structures must be understood as a series of V and U-shape giri.



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I- The first one corresponds to the triangular part of the IFG. The most anterior U is the opercular part of the IFG, just beside the PreCS. Together the triangular and opercular parts constitute the motor speech area of Broca in the dominant hemisphere. So the IFG is formed by pars orbitalis, pars triangularis and pars opercularis.

II- The next U is called the subcentral gyrus, rolandic operculum or the classical “inferior frontoparietal plis de passage of Broca”. Just below is situated the IRP.

III- The third U is composed by the arm connecting the postcentral and SMG.

IV- The C-shaped convolution that completes suprasylvian operculum is formed by the the SMG and the end of superior temporal gyri.

V- The inferior margin of the SF is in relation only to the STG, and is the temporal operculum

1)
Ribas GC, Ribas EC, Rodrigues CJ. The anterior sylvian point and the suprasylvian operculum. Neurosurg Focus. 2005 Jun 15;18(6B):E2. PubMed PMID: 16048297.