In the cadaveric material of Eordogh et al. from the Department of Neurosurgery, KRH Klinikum Nordstadt, Hannover, Germany., the sphenopalatine foramen is located at the transition of the superior and middle nasal meatus (95.0%) or in the superior nasal meatus (5.0%). It is the main entry point of the branches of the sphenopalatine artery into the nasal cavity. In most cadaveric cases (25.0%), at this level there are 2 branches superiorly and 1 vessel inferiorly to the ethmoid crest. An average of 2.4 vessels leave the sphenopalatine foramen superiorly to the ethmoid crest, 97.8% of them belong to the sphenopalatine arterys posterior septal branches. An average of 2.1 branches leave the sphenopalatine foramen inferiorly to the ethmoid crest; all of them belong to the posterior lateral nasal branches. There are no cases with a single artery at the plane of the sphenopalatine foramen. We describe a triangular bony structure bordering the sphenopalatine foramen anteriorly which is built up by the palatine and ethmoid bone as well as the maxilla. According to the radiographic studies, this triangular prominence is surrounded superiorly by a posterior ethmoid cell (57.4%), the sphenoid sinus (41.7%) or the orbit (0.9%) with a varying contribution of the superior nasal meatus; inferolaterally by the maxillary sinus (98.3%) or the pterygopalatine and infratemporal fossa (1.7%) and inferomedially by the middle nasal meatus. The medial vertex of the bony triangle corresponds to the ethmoid crest of the palatine bone. In transnasal endoscopic surgery, the posterior lateral nasal branches of the sphenopalatine artery appear at the triangle´s inferomedial edge, the posterior septal branches emerge at its superior edge.

The triangular bony structure is a landmark to find and differentiate the posterior lateral nasal and posterior septal branches of the sphenopalatine artery and to identify the sphenoid sinus [1)].

1)
Eordogh M, Grimm A, Gawish I, Patonay L, Reisch R, Briner HR, Baksa G. Anatomy of the sphenopalatine artery and its implications for transnasal neurosurgery. Rhinology. 2017 Nov 22. doi: 10.4193/Rhin17.181. [Epub ahead of print] PubMed PMID: 29166425.