As with other members of the azygos system, the ascending lumbar vein is inconstant and originates in the lateral sacral region from the common iliac vein, and connects the common iliac, iliolumbar and lumbar veins. It ascends between psoas major and the roots of the lumbar transverse processes. It passes behind the median arcuate ligament or through the crus of the diaphragm to the level of the first lumbar or twelfth thoracic vertebra, where it unites with the subcostal veins, thus forming the azygos vein on the right and the hemiazygos vein on the left.