Our investigation deals with the configuration of the arteries as they arise from the pulmonary artery. According to our study, we found variations from classical anatomical branching of pulmonary vessels. The patterns of pulmonary arterial supply to the right upper lobe have been studied in 100 laboratory and surgical specimens. The commonest single pattern consisted of 3 vessels, an anterior trunk, posterior and anterior ascending artery. The commonest pattern in middle lobe, encountered in 57% of the cases, consisted of 2 vessels. The superior segments of the lower lobes were supplied by single arterial branch in 80% of individuals. The number of arteries supplying the left upper lobe varied from 3 to 5, with most lobes receiving 4 branches in 50% of cases.

Surgeons usually ligate and divide the right inferior pulmonary vein without meticulous attention to its tributaries when performing right lower lobectomy when its trunk is long enough to divide safely. Our study identified variations of middle pulmonary vein. In this cases blockage of venous return from middle lobe vein in patients who have the anatomic variation of middle lobe vein drainage can lead to severe lung edema, which may cause infection or respiratory distress, postoperative complications that can be life-threatening.

The branching pattern of pulmonary vessels varies widely, and some patterns associated with a potential risk of intraoperative bleeding can only be identified at surgery. Preoperative foreknowledge of individual vessel configurations is thus useful for ensuring a safe and accurate procedure during pulmonary surgery. Variations of pulmonary vein, as right upper lobe venous drainage posterior to the bronchus intermedius, middle lobe vein draining to the right inferior pulmonary vein, can be identified by computer tomography. A somewhat greater awareness of anatomical variations while interpreting CT studies may make pulmonary resection safer and more anatomically accurate.