OSV-64

Unraveling the Pathways: Anatomical Variations of the Right Coronary Artery in Cadavers

Likitha Gaurav V[1*], Ashwini N S[2*]

[1]Sri Devaraj Urs Medical College, Karnataka, India.
[2]Department of Anatomy, Sri Devaraj Urs Medical College, Karnataka, India.

The right coronary artery is a major vessel supplying the right atrium, right ventricle, parts of the left ventricle, and the conduction system of the heart. Variations in its origin, course, and branching pattern are not uncommon and hold great significance for cardiologists, radiologists, and cardiothoracic surgeons. Cadaveric studies provide baseline anatomical data to complement imaging findings. The present study was undertaken to examine the morphology, course, and variations of the right coronary artery in cadaveric human hearts. A total of thirty formalin-fixed adult human cadaveric hearts were examined during routine dissection in the Department of Anatomy. The origin, course, branching pattern, dominance, and any anomalies of the right coronary artery were carefully observed and documented, and the findings were compared with standard anatomical descriptions. The artery originated from the right aortic sinus in all specimens. Right coronary dominance was observed in seventy-eight percent of cases, left dominance in fourteen percent, and balanced circulation in eight percent. Variations included high origin of the artery in four percent, duplication of the conus branch in ten percent, and accessory right ventricular branches in six percent. In one specimen, accounting for two percent, the right coronary artery gave an anomalous branch supplying the anterior interventricular septum, overlapping the distribution of the left anterior descending artery. The study demonstrates considerable anatomical variability of the right coronary artery, particularly in dominance and branching pattern. Awareness of these variations is essential for accurate interpretation of coronary angiograms, planning of bypass graft surgeries, and avoiding intraoperative complications.

Keywords: Right coronary artery, Coronary artery variations, Cadaveric study, Coronary dominance, Cardiac anatomy

***Correspondence:** Likitha Gaurav V
Likithagaurav@gmail.com
Ashwini N S
drashwini2000@gmail.com