

Abstract No. **27**

Category: **Heart Failure and Cardiomyopathies**

Title: **Coronary Angiography in Cardiac Neoplasms: A Growing Field for Diagnostic Image**

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**Abstract:**

**Background:** Although the clinical and main imaging characteristics of cardiac neoplasms are well known, there is a lack of information about the angiographic description. The purpose of this study was to describe the findings of coronary angiography in the more frequent cardiac neoplasms.

**Methods:** Retrospective analysis of clinical characteristics, cardiac images, surgical data, histological diagnosis and coronary angiography findings of patients with cardiac neoplasms was recorded. We identified the coronary artery supplying the tumor tissue and classified the cardiac neoplasm perfusion as Grade 0: No perfusion, Grade 1: Penetration without perfusion, Grade 2: Partial perfusion, Grade 3: Complete perfusion.

**Results:** We found eleven cases with histological diagnosis and coronary angiography. Mean age was 53,0 years (SD= 13,3) years and 90% were female (n= 10). Cardiac neoplasms were primary in 90,9% (n= 10) and metastatic in 9,1% (n = 1). The final histopathological diagnosis of cardiac neoplasms was myxoma in 45,4% (n = 5), papillary fibroelastoma 27,2% (n= 3), paraganglioma 9,1% (n= 1) and angiosarcoma 9,1% (n= 1). The origin of the metastatic cardiac neoplasm was a breast adenocarcinoma. The myxoma was irrigated by the left circumflex artery (LCX) in all cases, two of which also had irrigation of the right coronary artery (RCA). Perfusion grade was 0 in 2 cases, grade 1 in one case, and grade 3 in 2 cases. There were three Papillary fibroelastomas, one was irrigated by the LCX, the second by the RCA, both with a degree perfusion of 0; whereas the third one did not have irrigation. The paraganglioma was irrigated by the left anterior descending artery (LAD) and LCX (Perfusion Grade: 3). The angiosarcoma was irrigated by the LAD and RCA (Perfusion Grade: 3). The metastasis of the adenocarcinoma was irrigated by the LCX and RCA (Perfusion Grade: 2).

**Conclusion:** Coronary irrigation and the degree of perfusion of the main benign cardiac neoplasms (papillary fibroelastoma, myxoma and paraganglioma) can be variable. Larger cohorts are needed to establish the exact irrigation pattern of each of the cardiac neoplasms.