Conclusion: Adrenergic and cholinergic nerves and ganglia play a role in atrial fibrilation triggers from thoracic veins. The selective targeting of either vagal or sympathetic nerves due to co-localization is impossible.

002

Ischemic heart disease in postmortem CT and CT angiography

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Objective: Postmortem radiology had in recent years appeared in the field of forensic medicine and is now considered by some authors as a good replacement for conventional autopsy and by others as a complementary examination. Although postmortem CT radiological imaging is very useful in demonstrating traumatic lesions, its utility is still quite limited in the cardiovascular field. This limitation could be minimized by the introduction of postmortem angiography. At the University Center of Legal Medicine of Lausanne, CT scans and postmortem multiphase CT angiography are used in cases with a suspicion of ischemic heart disease.
Method: The goal of this presentation is to demonstrate some correlations between postmortem CT, CT angiography and conventional autopsy examination in cases of ischemic heart disease.
Results: We observed that the native CT scan can show only some pathological findings as cardiac tamponade and calcifications of coronary arteries. However, postmortem angiography allows a better visualization of coronary arteries and evaluation of stenosis and occlusion as well as better imaging of soft tissue.
Conclusion: The interpretation of postmortem modern radiology is a new field for both forensic pathologists and radiologists who have to learn to read the postmortem modified images. The information obtained from both parties can help to further the understanding of CT and CT angiography in postmortem cases.

003

Inflammatory infiltration in the atrial myocardium and the left ventricle of patients with atrial fibrillation

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Objective: Inflammatory response is associated with the presence of atrial fibrillation (AF). However, it is not clear whether inflammation is confined to the atria only or the venticles are also affected.

Method: A histologic study and an immunohistochemical analysis were performed using antibodies against CD3-antigen on the autopsy specimens collected from 30 patients (age 64±12 years) in three age-matched groups: t without AF, 10 with paroxysmal AF and 10 with permanent AF. The specimens were taken from crista terminalis (CT), posterior left atrium (LA) and LV. Average CD3+ cell count/mm^2 was compared between tissue sampling locations and groups in regard to AF history.
Results: The average number of CD3+ cells/mm^2 was 7.6±4.4 at CT, 4.2±2.0 at LA and 6.3±3.2 at LV in patients without AF (ns). In paroxysmal AF, the cell count was 19.2±7.8 at CT, 14.6±5.4 at LA and 18.0±4.0 at LV (ns). In permanent AF, it was 24.4±7.8 at CT, 25.1±8.6 at LA and 17.0±7.9 at LV (ns). Cell count was higher at all locations in patients with AF compared with controls ($p<0.001$).
Conclusion: Chronic myocardial inflammation is common in patients with a history of AF and is not limited to the atria only.

004

Sudden cardiac death caused by isolated coronary vasculitis

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Objective: Isolated coronary vasculitis is a rare and diagnostically challenging cause of sudden cardiac death (SCD). There are currently no large-scale series on this rare entity.
Method: This is a retrospective non-case–control observational study of ten SCD cases with isolated coronary vasculitis referred to the Cardiac Risk in the Young (CRY) unit at the Royal Brompton Hospital in a database of 1,980 cases.
Results: Five male and five female cases were observed—mean age 40.7±18.3 years and range 15–71 years. Six deaths occurred in the hospital following symptoms or cardiac arrest in the community; the remaining died at rest at home ($n=4$). The appearances ranged from aneurysms of the coronary artery to occlusive lesions mimicking atheroma to masses imitating tumour. The types of vasculitis detected were eosinophilic ($n=5$), of which two were associated with Churg–Strauss syndrome; lymphoplasmacytic vasculitis ($n=2$), one confirmed to be IgG4-related; lymphocytic vasculitis ($n=1$); idiopathic giant cell arteritis ($n=1$); and occlusive mixed vasculitis ($n=1$). The majority of cases ($n=7$) showed myocardial damage including inflammation which extended from the coronaries.
Conclusion: This study shows that isolated coronary vasculitis is a rare cause of SCD. It has a variable macroscopic and microscopic appearance that pathologists need to be aware of.