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| **Pathology** | **Macroscopic Criteria** | **Microscopic Criteria** |
| Hypertrophic cardiomyopathy | Increase in heart weight ( above 550 in male and 450 in female ) Right ventricular wall thickness >5mm or left >15 mm .  Atrial dilatation.  Can be normal macroscopically.  Absence of coronary artery disease. | Left ventricular myocyte disarray\* (>20% of myocardial disarray in at least 2 cardiac sections) and myocyte hypertrophy with or without interstitial or replacement fibrosis and thick walled blood vessels. |
| Arrhythmogenic cardiomyopathy | Normal or increased heart weight . Right or left ventricular thinning, fatty replacement, fibrosis on the epicardial surface.  Can be normal macroscopically.  Absence of coronary artery disease. | Fibrosis admixed with fatty infiltration of the myocardium originating from the epicardial surface (>20% in at least 2 cardiac sections). |
| Dilated cardiomyopathy | Increase in heart weight with dilated left ventricle (>40mm chamber diameter ) and thin compact wall (<10mm).  Mural thrombi in ventricles Dilated atria with thrombi in appendages.  Absence of coronary artery disease. | Widespread diffuse interstitial or replacement fibrosis (>20% in at least 2 cardiac sections) in the left ventricle with atrophic myocytes. |
| Idiopathic left ventricular hypertrophy | Increase in heart weight . Left ventricular wall thickness >15 mm . No hypertension diabetes ,obesity or coronary artery disease | Myocyte hypertrophy with or without replacement or interstitial fibrosis. Absence of myocyte disarray. |
| Obesity Cardiomyopathy | Increase in heart weight . Left ventricular wall thickness >15 mm . No hypertension diabetes or coronary artery disease | Myocyte hypertrophy with or without replacement or interstitial fibrosis. Absence of myocyte disarray. |
| Hypertensive heart disease | Increase in heart weight . Left ventricular wall thickness >15 mm. History of hypertension.  No coronary artery disease | Myocyte hypertrophy with fine interstitial fibrosis in subendocardium. Absence of myocyte disarray. |
| Myocarditis | Normal or dilated ventricles with variegated appearance.  Fibrinous pericarditis.  Can be normal macroscopically | Inflammation (>20% in at least 2 cardiac sections) with associated myocyte necrosis. |
| Coronary atherosclerosis | Atherosclerosis with luminal narrowing >75% or lumen less than 1mm or inability to insert 2mm probe.  Infarction or scarring in myocardium.  Normal myocardium  Rupture with haemopericardium.  Thrombosis in coronary artery. | Acute or chronic infarction in right or left ventricle.  May be no infarction . |
| Anomalous coronary artery | Anomalous origin of the coronary artery in the incorrect sinus with interarterial course or pulmonary artery origin . | May have acute or chronic infarction in the right or left ventricle. |
| Mitral valve prolapse | Prolapse of mitral valve above the atrioventricular junction with ballooning between cords in one or both leaflets. Diffuse thickening of leaflets.  Mitral Annular dilatation  Cordal thinning and /or rupture. | Myxoid degeneration with expansion in spongiosa of leaflets and destruction of fibrosa layer. May be subendocardial fibrosis in posterobasal left ventricle. |
| Aortic stenosis | Significant valve stenosis demonstrated by inability to insert a finger through the annulus.  Calcified valve and/or bicuspid valve.  Increase in heart weightᶧ and left ventricular wall thickness >15mm. | Myocyte hypertrophy and/or interstitial or replacement fibrosis throughout left ventricle. |