HYPERTROPHIC CARDIOMYOPATHY

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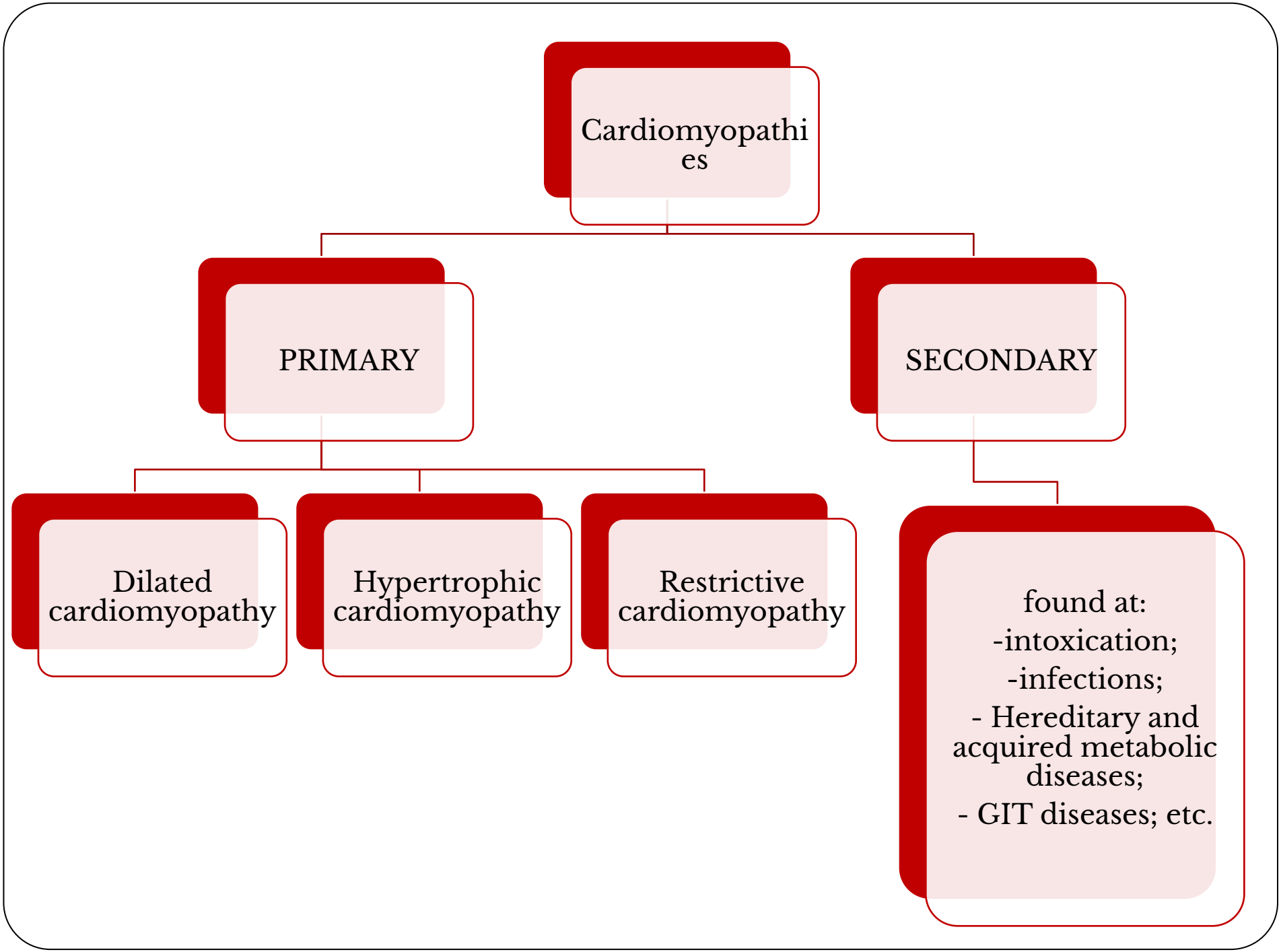
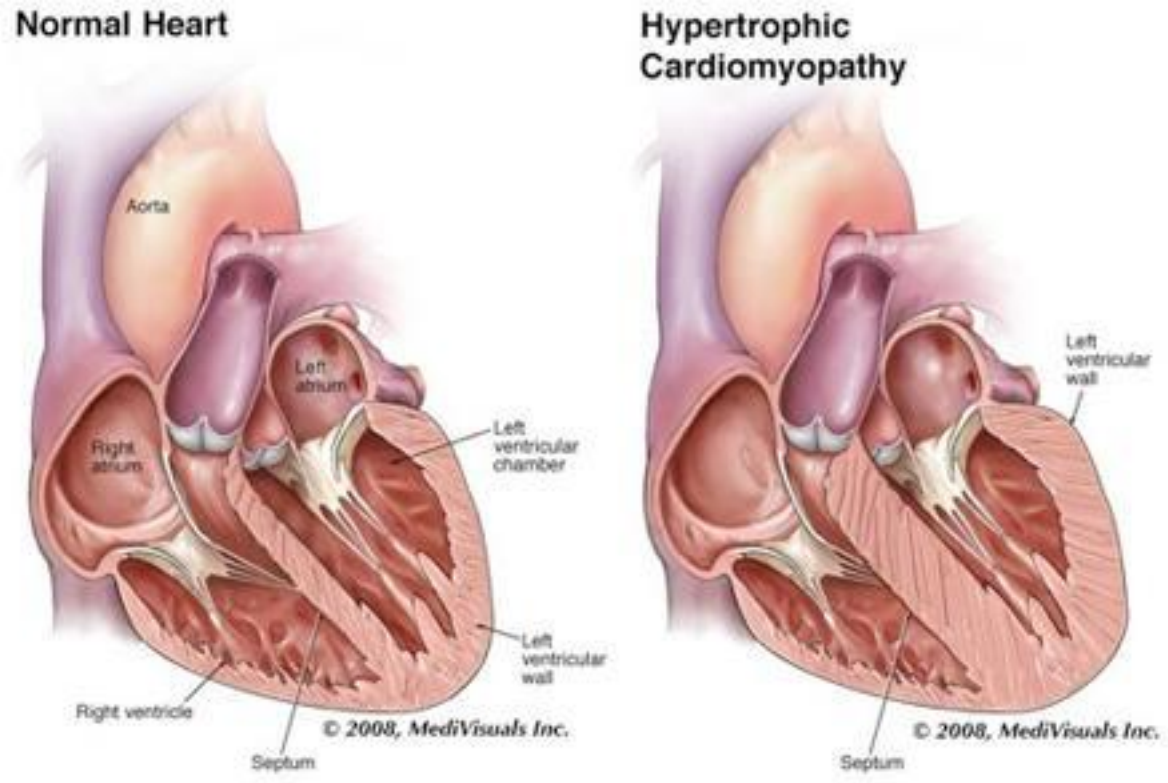
Plan:

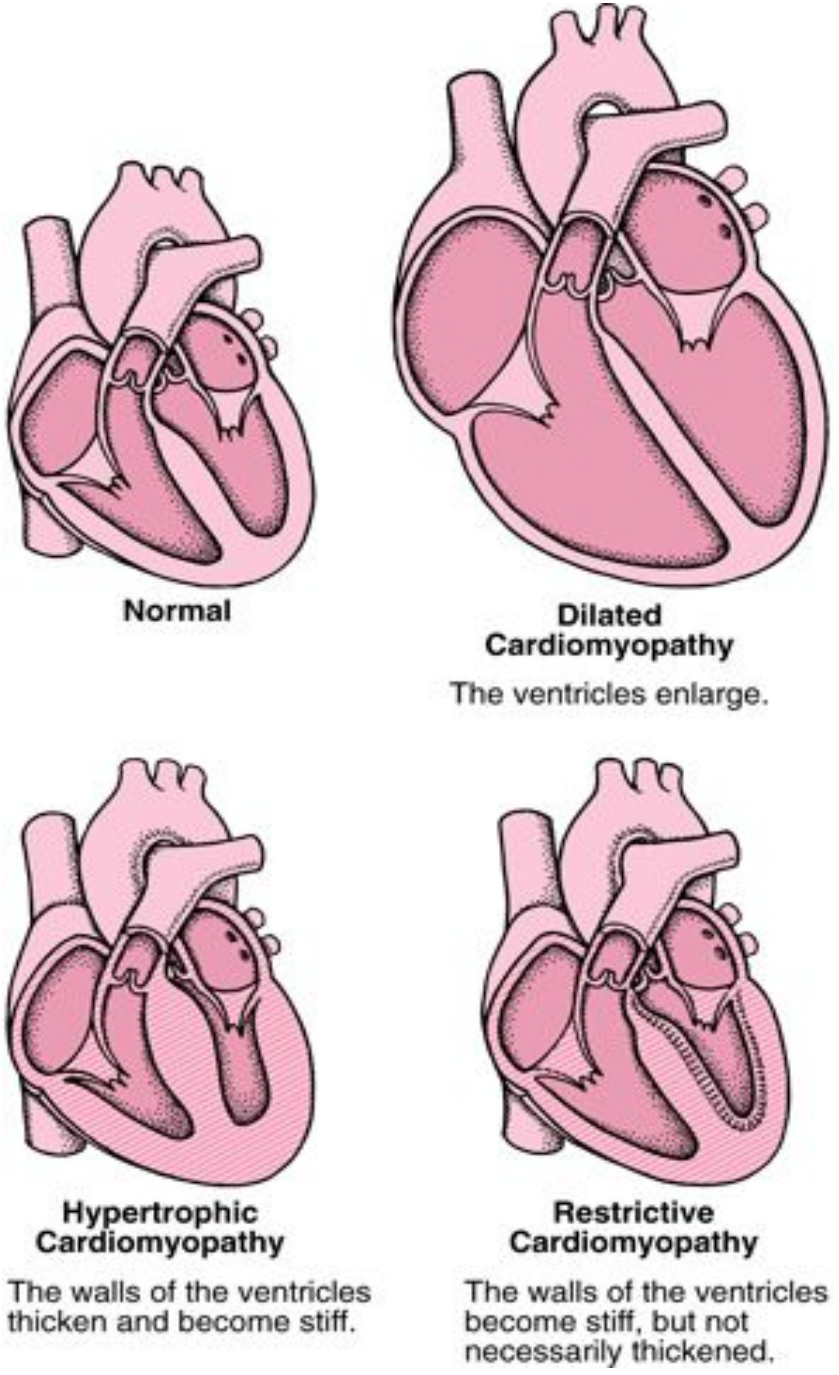
- Classification
- Definition of disease
- Etiology
- Morphology:
  - macro image;
  - micro image.
- Complications
- Conclusion
- Reference


Cardiomyopathies
PRIMARY
SECONDARY
Dilated cardiomyopathy
Hypertrophic cardiomyopathy
Restrictive cardiomyopathy
found at:
-intoxication;
-infections;
- Hereditary and acquired metabolic diseases;
- GIT diseases; etc.

- ***Hypertrophic cardiomyopathy*** – is a primary myocardial disease, characterized by local or symmetrical ventricular hypertrophy, diastolic dysfunction, arrhythmias and high risk of sudden death.



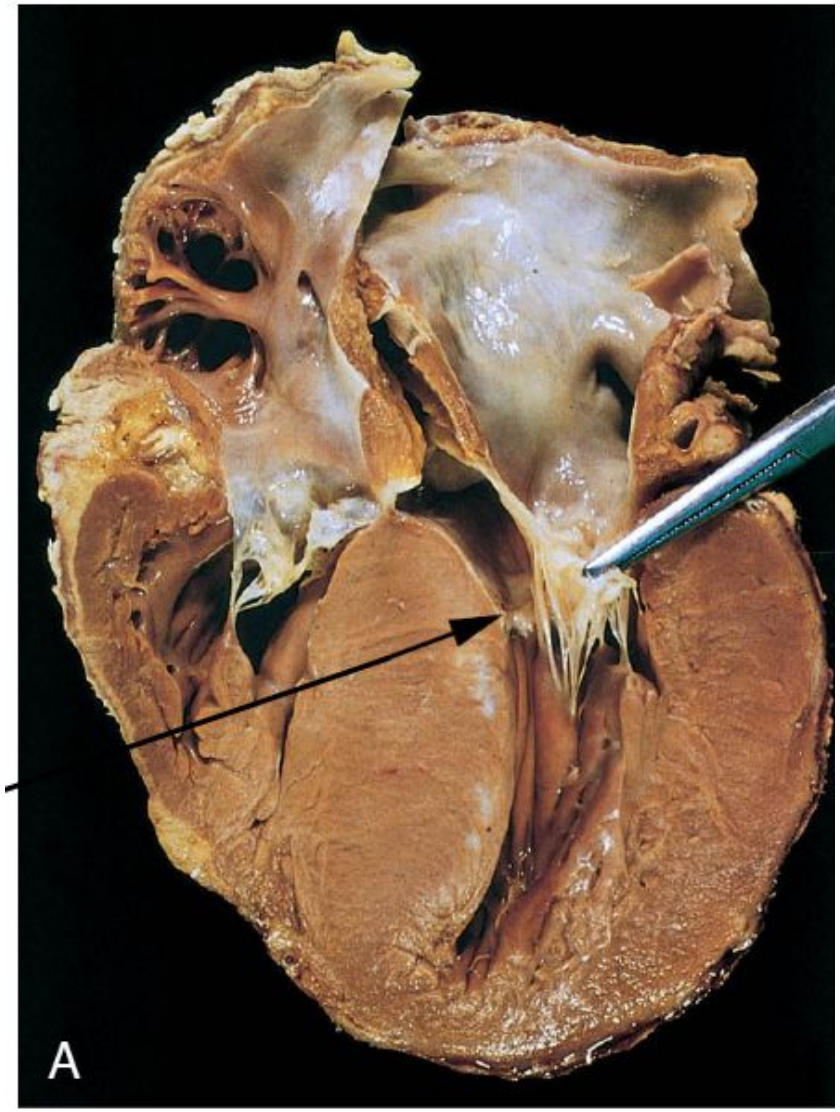
It is characterized by myocardial hypertrophy, abnormal diastolic filling, and in about one third of cases, intermittent ventricular outflow obstruction.



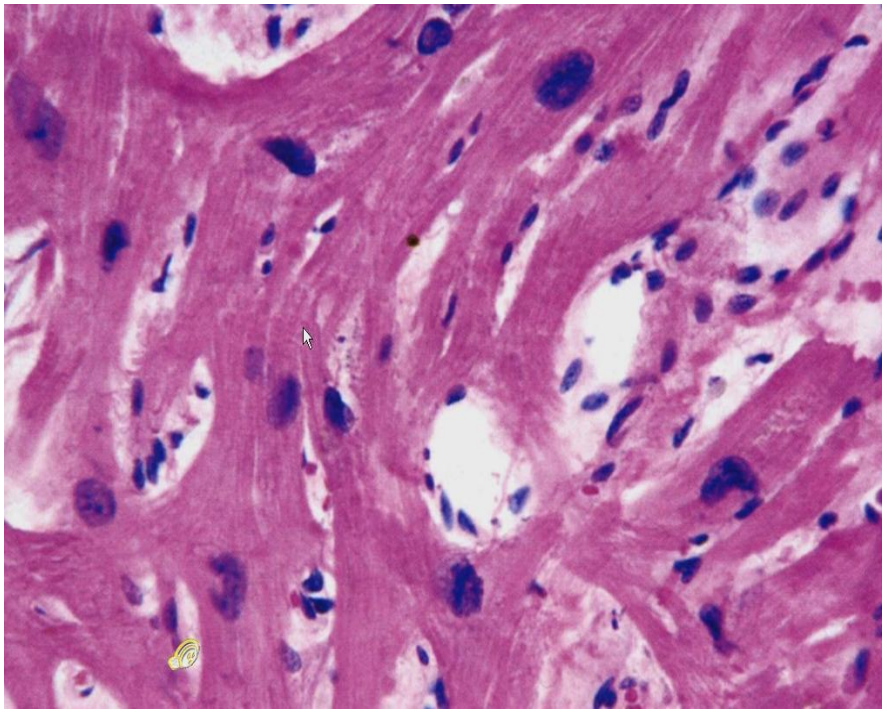
Etiology

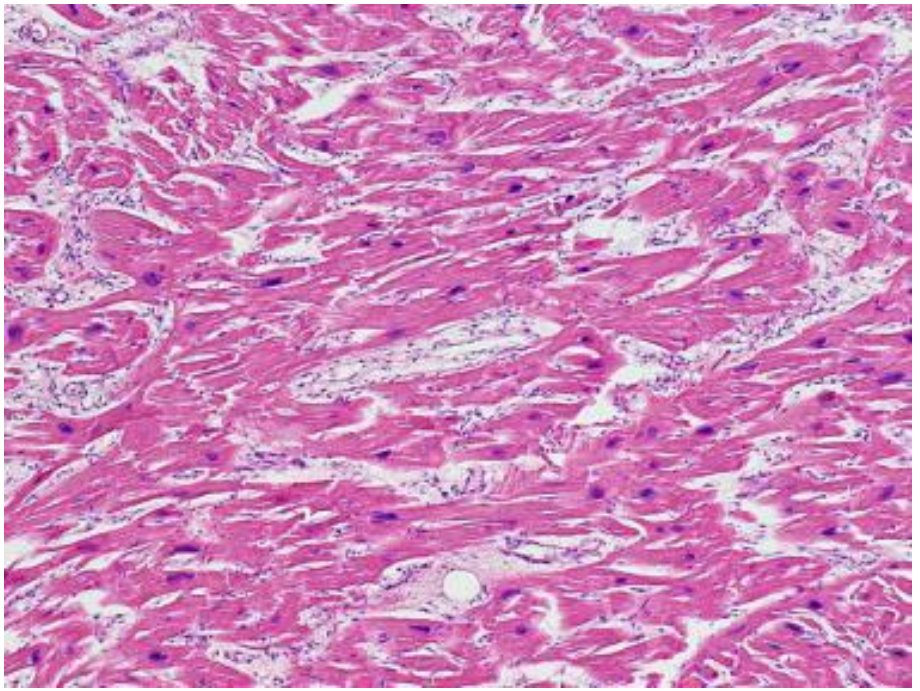
Hypertrophic cardiomyopathy

- **Inherited** — by abnormal genes (gene mutations) that cause the heart muscle to grow abnormally thick
- **Obstructive** — have a form of the disease in which the wall (septum) between the two bottom chambers of the heart (ventricles) becomes enlarged and impedes blood flow out of the heart.
- **Non-obstructive** — significant blocking of blood flow. However, the heart's main pumping chamber (left ventricle) may become stiff, reducing the amount of blood the ventricle can hold and the amount pumped out to the body with each heartbeat



- The ventricular cavity loses its usual round-to-ovoid shape and may be compressed into a ‘banana-like’ configuration by bulging of the ventricular septum into the lumen.
- Often present are endocardial thickening or mural plaque formation in the left ventricular outflow tract and thickening of the anterior mitral





- Extensive myocyte hypertrophy with transverse myocyte diameters frequently greater than 40 µm (n: ~ 15µm)
- Haphazard disarray of bundles of myocytes, individual myocytes, and contractile elements in sarcomeres within cells
- Interstitial and replacement fibrosis

Literature:

- V.Kumar, A.K. Abbas, S.N. Fauso. Pathologic Basis of Disease, 7th edition, 2008 – 1525 p.
- V.V.Serov, V.S.Paukov. Pathological anatomy, 2010 – 800 p.
- R.A.Cooke, B.Stewart. Colour Atlas of Anatomical Pathology, 3rd edition, 2004 – 300 p.

Thank you for attention!