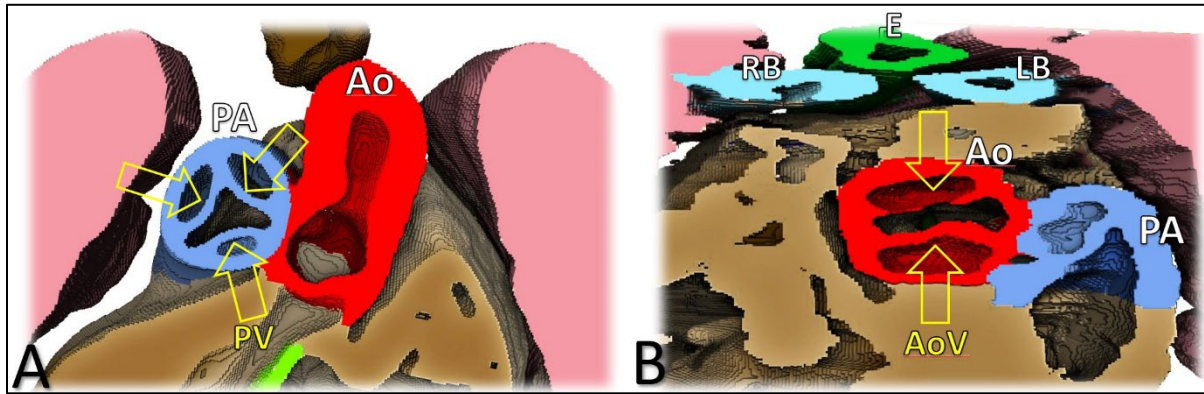
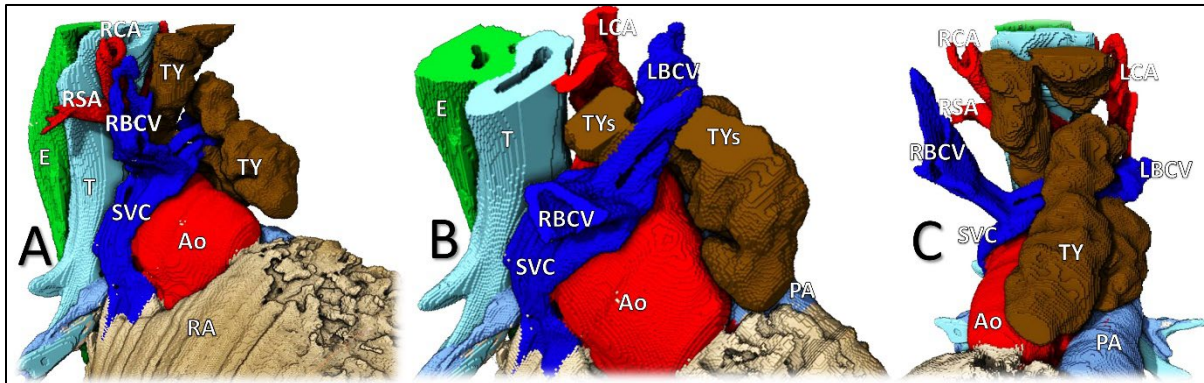


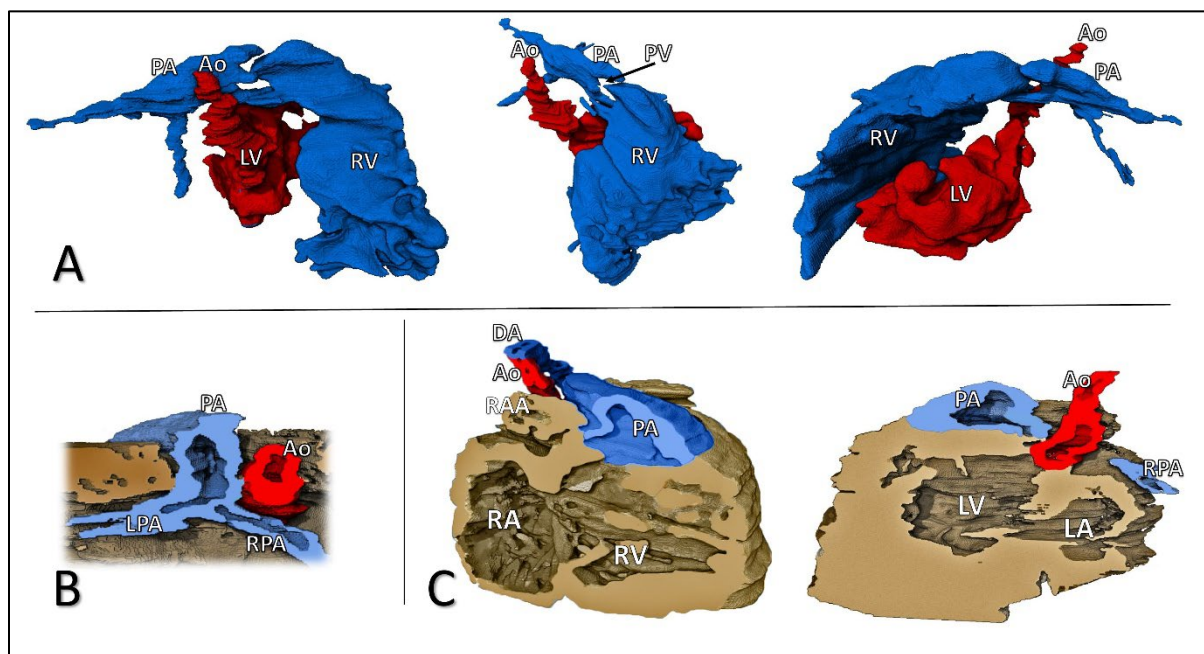
Appendix 1. Axial planes at the level of great vessels valves. A. Transverse section through the pulmonary artery showing the three cusps of the pulmonary valve (yellow hollow arrows). B. Transverse section through the aorta showing bicuspid aortic valve the (yellow hollow arrows indicate the two aortic valve cusps). Ao, aorta; PA, pulmonary artery; AoV, aortic valves; PV, pulmonary valves; E, esophagus; RB, right bronchia; LB, left bronchia.



Appendix 2. Frontal and lateral views of the thymus position in relation to the left brachiocephalic vein. A. Lateral oblique view showing the superior vena cava entering the right atrium and left brachiocephalic vein passing through the thymus. B. Lateral view showing the right lobe of the thymus posterior to the left brachiocephalic vein. C. Frontal view showing the left brachiocephalic vein traversing thymic parenchyma. RBCV, right brachiocephalic vein; LBCV, left brachiocephalic vein; SVC, superior vena cava; T, trachea; TY, thymus; TYs, thymus sectioned; E, esophagus; RA, right atrium; Ao, aorta; P, pulmonary artery; LCA, left carotid artery; RCA, right carotid artery; RSA, right subclavian artery.



Appendix 3. Various methods that can be used to highlight the discordance between heart ventricles and outflow tracts. A. Ventricles and emergent vessels cavities computed by ambient occlusion function, for a better assessment of their relative size, view from the right ventricle, the apex, and from the left ventricle. B. Transverse section through the pulmonary artery and the aorta at the base of the heart, illustrating the diameter difference, emphasizing the hypoplastic aorta. C. Longitudinal long axis sections through the reconstructed heart depicting the differences between the ventricles' size and between the great vessel's caliber - right ventricle and right ventricle outflow tract with normal sizes and a much smaller cavity of the left ventricle with thickened myocardium and stenotic left ventricular outflow tract. Ao, aorta; PA, main pulmonary artery; LPA, left pulmonary artery; RPA, right pulmonary artery; LV, left ventricle; RV, right ventricle; LA, left atrium; RA, right atrium; RAA, right atrium auricle.



Appendix 4. First-trimester fetal heart with hypoplastic left heart syndrome, myocardial hypertrophy, and fibroelastosis, histology aspects. A. Masson's trichrome stain, axial section through the heart with dense collagen fibers (colored in *blue*) in the hypertrophic left ventricle wall; B. Periodic acid–Schiff stain, axial section through the heart showing dense fibrin deposits; C. Orcein Stain, axial section through the heart – dense elastic fibers colored in *red*; D. 20x objective - thickening of the subendothelial collagen fibers compared to the deeper layer. Petechial microhemorrhages zones; E. 20x objective – damaged endothelium, subendocardial fibrin deposits, vessel thrombosis and blood stasis; F. 20x objective – subendothelial thickening of the elastic fibers, compared to the deeper layer.

