

Poster number EP05.14

Antenatally diagnosed absent ductus venosus with umbilical to azygos vein connection

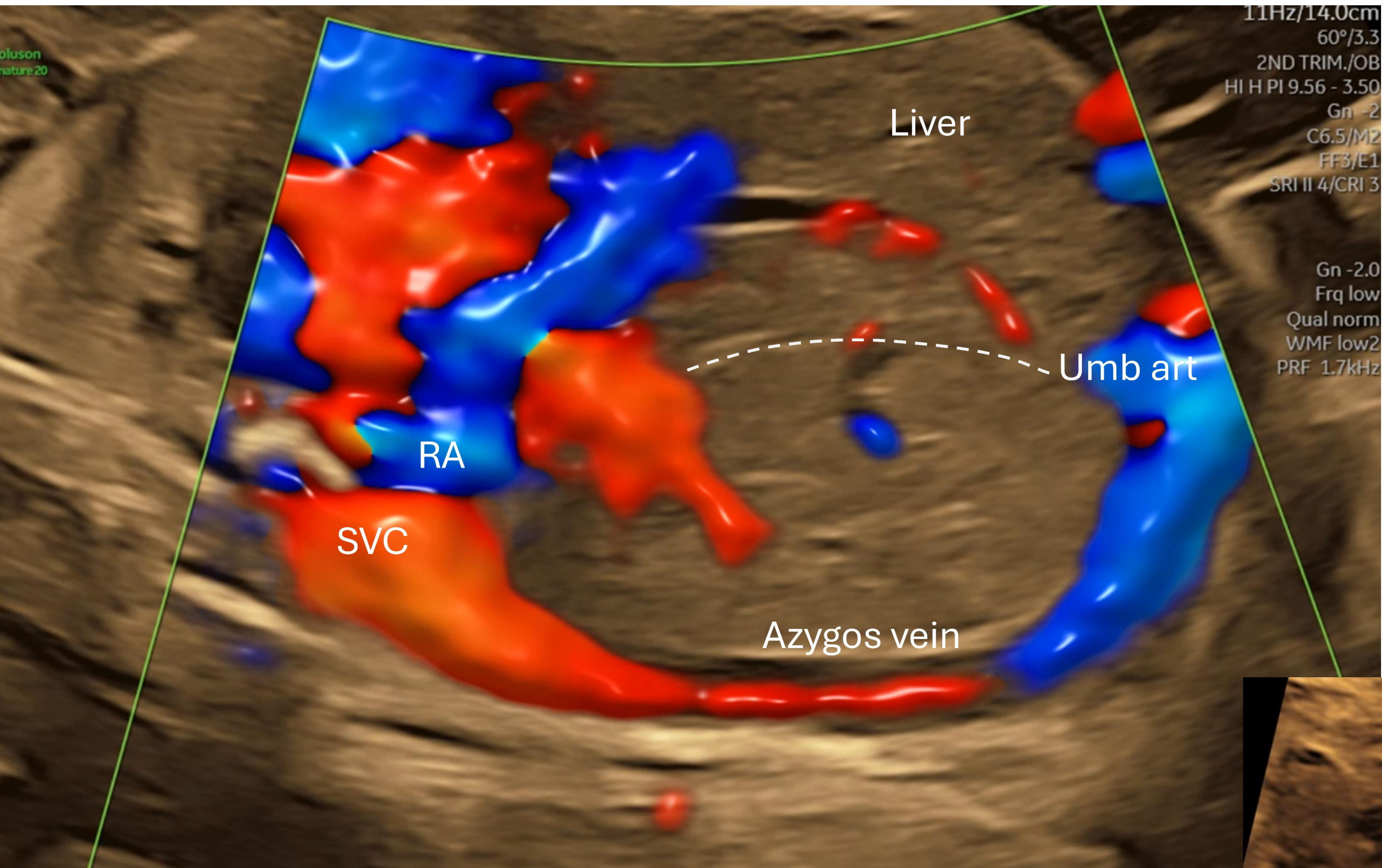
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Absence of the ductus venosus is a rare anomaly of the fetal venous system. Only a few cases have been described since the first report in 1888. The umbilical vein brings oxygenated blood to the fetus, and any interruption to the normal pathway would be catastrophic unless alternate connections are present. These connections have been classified and can occur within the liver or outside it. Extrahepatic connections include anastomosis of the umbilical vein to a systemic vein, right atrium, or coronary sinus.

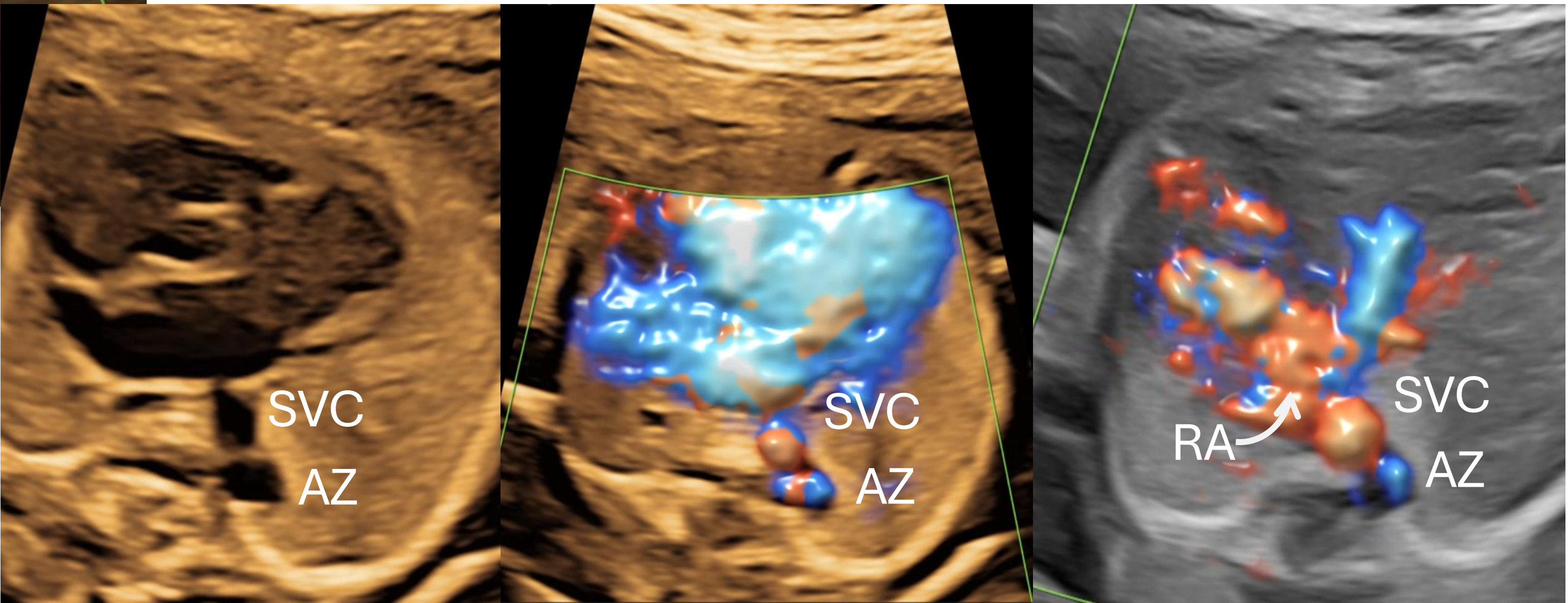
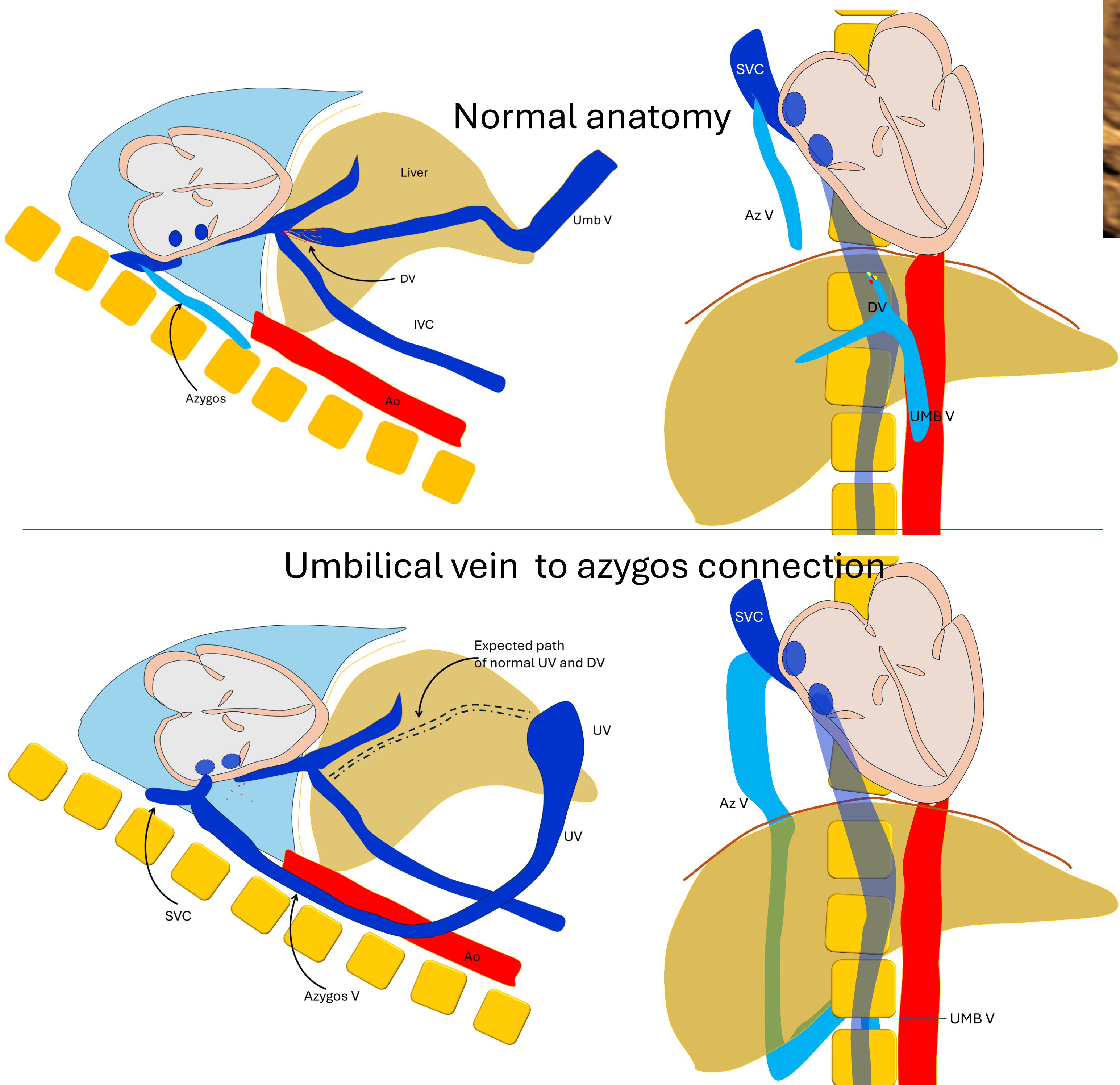
Recently, a case of absent ductus venosus was described with an anastomosis of the umbilical vein with the azygos vein, bypassing the liver (Achiron type 1 Umbilical Portal Systemic Portal shunt). This was the first reported case of this anomaly.

We report a case of absent ductus venosus; the umbilical vein did not show any intrahepatic course but veered behind the liver and ascended towards the diaphragm to enter the azygous vein, and eventually into the right atrium. The fetus also had a common arterial trunk and a large VSD. The diagnosis was made at 26 weeks and 5 days. Invasive testing was offered, but the parents refused. The fetus was carried to term. There was no facial or body dysmorphism. The baby is alive at 6 months and is awaiting corrective cardiac surgery.

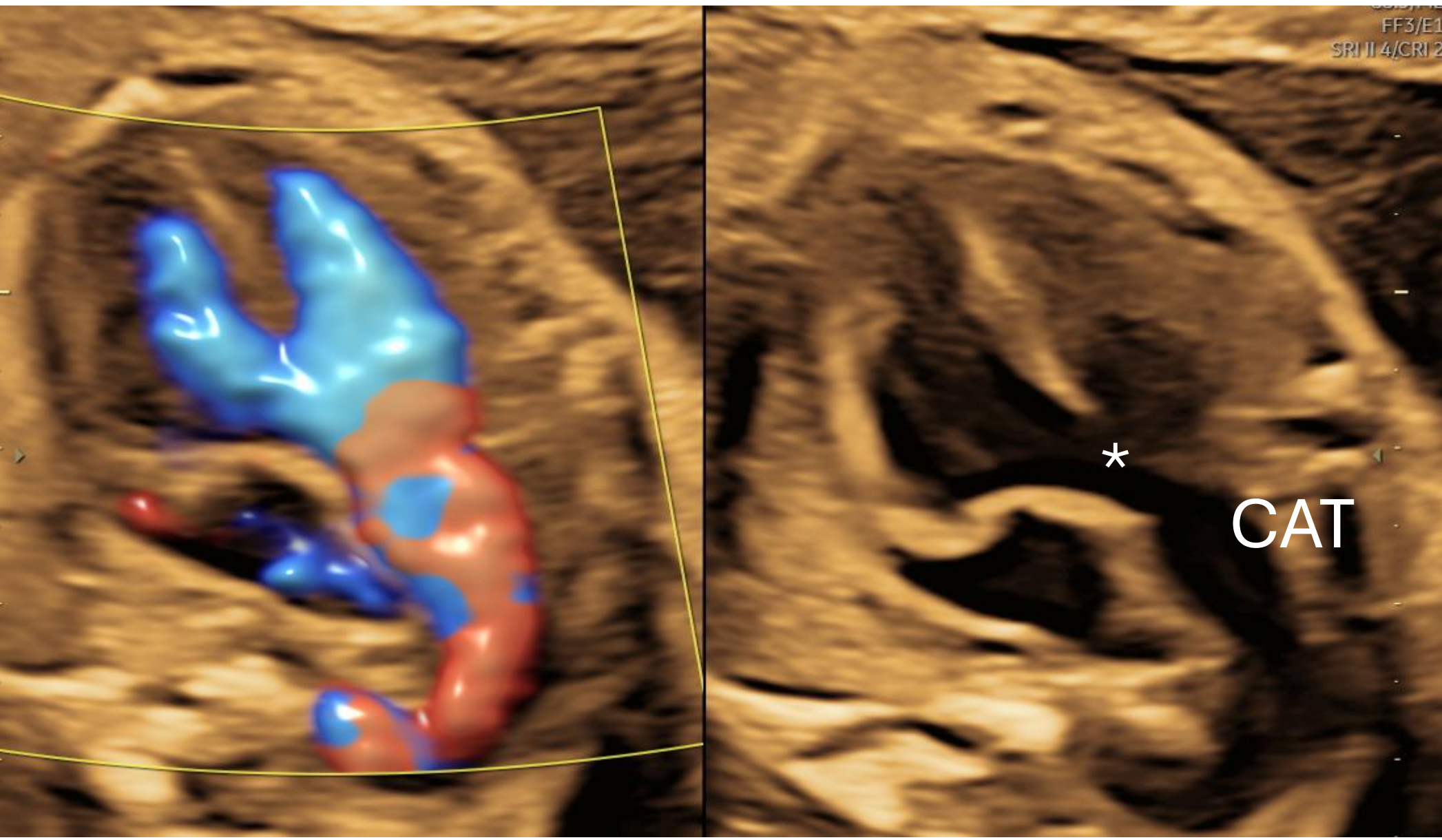
To the best of our knowledge, this is only the second reported case of this very rare condition.



Oblique coronal section of the fetal abdomen, showing umbilical vein, veering to join the azygos vein instead of passing through the liver to join the inferior vena cava along its expected path (dashed line). The azygos vein joins the superior vena cava (SVC) and then the right atrium (RA).



Axial sections showing superior vena cava and azygos veins adjacent to each other (left and middle) a section just below shows the svc draining into the right atrium (RA)



The fetus also had a common arterial trunk (CAT) straddling a large VSD (*)