Case report

Prenatal ultrasound at 22 weeks identified stricture of the upper third of the intra-abdominal umbilical vein (UV) before its entry into the portal sinus associated with a complex vascular abnormality. We are unsure of its nature but postnatal CT scan finding of opacification of the left superficial inferior epigastric vein shed light on the answer. Ultrasound identified an unusual vein ran parallel and immediately adjacent to the UV but in opposite direction from its connection with the middle third of the UV proximal to the beginning of the stricture to a venous cluster beneath the umbilicus on left side of the left umbilical artery. This likely represented the vein of Burow. Colour Doppler showed three veins emerged from the venous cluster. Two parallel veins ran downward, the superficial one into the left femoral vein and the deeper one into the left external iliac vein. These two veins were likely the left superficial and deep inferior epigastric veins and the venous cluster at umbilicus the anastomosis between the paraumbilical and the epigastric veins. The third one ran upward, parallel but superficial to the UV and its colour signal ended at the liver edge. This was likely the main channel of Sappey’s inferior veins, which carried part of the blood from UV to portal veins bypassing the stricture. This interpretation is anatomically sound and explains the residual dilatation of the left superficial inferior epigastric vein and disappearance of the unusual vascular findings and UV stricture following interruption of umbilical venous flow after birth.

Conclusion

We report the first case of prenatal visualization of dilated paraumbilical veins, which provided alternative routes for drainage of umbilical vein in the presence of obstruction by an umbilical vein stricture.