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CORRESPONDENCE

Propranolol in Congenital Hepatic Arteriovenous Malformation

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To the Editor: Congenital hepatic arteriovenous malformations (HAVM) are managed with either embolization or surgical resection [1]. Here, oral propranolol was successfully used in the treatment of HAVM, which is recommended for infantile hemangiomas (IH).

A term baby boy weighing 2.6 kg was born vaginally to a primigravida. On day 3 of life, the baby had respiratory distress, tachycardia, and a galloping rhythm with mild hepatomegaly. In echocardiography, the baby had pulmonary hypertension with high cardiac output and a large (42×17 mm) hepatic vascular lesion. Triphasic contrast CT abdomen revealed a hypervascular enhancement area (5.4×4.7×3.9 cm) in segments VIII, V, and IVB of the liver with a dilated right hepatic artery and middle hepatic vein; this was diagnosed as a case of HAVM. The baby was managed with oral furosemide for congestive cardiac failure (CCF) and oral propranolol at 2 mg/kg/d in two divided doses for 6 mo. The clinical features of CCF subsided by 3 mo of age. During his last follow-up at 3 y of age, vascular malformation was replaced by irregular calcification (9.5×8.6 mm) in the ultrasound abdomen.

This hepatic vascular lesion rapidly resolved with conservative management and oral propranolol, and mimics a case of rapidly involuting congenital hemangioma (RICH) [2]. The pattern of enhancement in a triple-phase CT scan may help in distinguishing between hemongiomas and AVM in hepatic vascular lesions.

The benefit of propranolol in the resolution of HAVM may be its vasoconstrictive, antiapoptotic, and antiangiogenic effects. Recently, propranolol was successfully used in an antenatally diagnosed HAVM case and in two Chinese neonates with congenital HAVM cases [3, 4].

We had not observed any adverse effects of propranolol, and the dosage we used was similar to that recommended for IH. In conclusion, clinicians may use propranolol in symptomatic HAVM cases before planning aggressive therapy.

Declarations

Conflict of Interest None.

References

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