

Infantile haemangioma: topical timolol gel may be safer in premature babies

Infantile haemangiomas are benign vascular tumours which spontaneously involute. Oral propranolol is the first-line treatment for complicated infantile haemangiomas at critical sites (National Institute for Health and Care Excellence, 2015). For small, superficial infantile haemangiomas, 0.5% topical timolol is a treatment option (National Institute for Health and Care Excellence, 2015; Novoa et al, 2018). A Cochrane review found oral propranolol and topical timolol maleate to be equally effective in reducing haemangioma size (Novoa et al 2018). An American study of 22 preterm infants found <0.2 mg/kg/day topical timolol to be safe, although infants aged <44 weeks (post-gestational) and weight <2.5 kg at treatment initiation may be at risk of adverse events: bradycardia, hypotension, apnoea or hypothermia (Frommelt et al, 2016).

An ex-premature 28⁺⁶-week infant presented with a small ulcerated area over a proliferating infantile haemangioma in the right neck fold, measuring 2 cm x 1.5 cm (*Figure 1*). The infant was post-gestational age 39 weeks and weighed 2.46 kg. Treatment was considered necessary because of the ulceration and potential complications of infection, bleeding and scarring. Because of the infant's prematurity, 0.5% topical timolol was started, and the infantile haemangioma significantly reduced in size over 6 months (*Figure 2*). The infant's temperature, blood pressure

and heart rate were closely monitored throughout treatment. **BJHM**

Frommelt P, Juern A, Siegel D et al. Adverse events in young and preterm infants receiving topical timolol for infantile hemangioma. *Pediatr Dermatol.* 2016 Jul;33(4):405–414. <https://doi.org/10.1111/pde.12869>
National Institute for Health and Care Excellence. 2015. Evidence Summary. Infantile haemangioma: topical timolol. (accessed 4 October 2018) [nice.org.uk/guidance/esuom47](https://www.nice.org.uk/guidance/esuom47)
Novoa M, Baselga E, Beltran S, Giraldo L, Shahbaz A, Pardo-Hernandez H, Arevalo-Rodriguez I. Interventions for infantile haemangiomas of the skin. *Cochrane Database Syst Rev.* 2018 Apr 18;4:CD006545. <https://doi.org/10.1002/14651858.CD006545.pub3>

Figure 1. Infantile haemangioma at presentation.



Figure 2. Infantile haemangioma after treatment.



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