Author's reply

Dear Editor,
We are thankful for the esteemed attention to our work. Herein, we have responded to the queries:

The down regulation of angiogenic growth factors like vascular endothelial growth factor (VEGF-A) by beta blockers has been proposed as the main mechanism of action in infantile haemangioma.[1] Picard *et al*., have shown that VEGF expression is uniformly increased in congenital haemangiomas (both involuting and non-involuting) compared to proliferating or involuting phase infantile haemangioma.[2] This prompted us for the use of propranolol in non-involuting congenital haemangioma (NICH). We observed response to NICH in our series, but we agree that larger prospective studies are required to further evaluate the efficacy of propranolol in NICH.

We have mentioned that superficial and progressive lesions responded faster compared to the lesions with large deeper component and in non-proliferative phase. All 3 patients (100%) who were non-responders and 8 (53.3%) patients with partial response had bulky deeper component.

We have cautiously used propranolol in children considering its potential life-threatening adverse effects. As part of ongoing study in our department, we have used propranolol in 84 children so far. We have not observed serious adverse effects in any child. Three children with adverse effects mentioned in the paper and 4 more children (ongoing study) who had adverse effects were thoroughly evaluated. Hyperkalaemia was not documented in any one of them. Though we agree that hyperkalaemia is one of the potential severe adverse effects, one should be very vigilant in this regard.

Propranolol is a valuable therapeutic alternative for treatment of ulcerated haemangioma. We have used antibiotics according to sensitivity in cases with proven infection on the basis of positive culture from the wound. The remaining cases were solely managed with propranolol.

Finally, we had proposed the title of article as, "Propranolol for Infantile and Non-Involuted Congenital Haemangiomas: Early Experience from a Tertiary Centre". This was modified according to the Journal's requirement by the Editorial board.

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