

The authors reply: The mainstay of current medical therapy for endometriosis is hormone-based and is thus predominantly contraceptive and nonteratogenic. Given that most cases of endometriosis occur during the reproductive years, the expected benefits of any new therapeutic approach must be balanced against the risks to potential pregnancies and offspring. Tyrosine kinase inhibitors are used in cancer therapy and have been suggested as treatment for some nonmalignant conditions.<sup>1</sup> Animal models have shown evidence of inhibition of endometriosis with tyrosine kinase inhibitors.<sup>2</sup>

VEGF receptors are transmembrane tyrosine kinases that are involved in angiogenesis and vasculogenesis and thus play a role in the development of endometriosis. However, they are also pivotal in embryo implantation and development. Some unplanned pregnancies in patients with cancer who have been treated with tyrosine kinase inhibitors have been reported to result in miscarriage and birth defects, a finding that confirms the data in animals.<sup>3</sup> Although improved medical treatment of endometriosis-associated symptoms is needed, we advise extreme caution regarding inhibition of blood-vessel growth in this population of young women, many of whom are potentially trying to conceive or are at risk for unplanned conception.<sup>4</sup>

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#### Citations:

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3. Abruzzese E, Trawinska MM, Perrotti AP, De Fabritiis P. Tyrosine kinase inhibitors and pregnancy. *Mediterr J Hematol Infect Dis* 2014;6:e2014028.
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