

Comment. Children receiving intravitreal bevacizumab therapy as compared with children undergoing retinal laser coagulation were significantly less myopic at 1 year of follow-up. Although the cause for myopization in children treated for ROP has remained unclear so far, the results of our study are in line with previous investigations in which myopization was more pronounced in children randomized for the more invasive cryotherapy than in those who received the less invasive laser therapy.⁶ Intravitreal medical therapy for ROP as compared with laser therapy may thus have the following advantages: (1) the possibility of performing the therapy under local anesthesia instead of general anesthesia; (2) the possibility of not destroying the peripheral retina by coagulation; and (3) potentially a lower degree of myopization. Limitations of our study were the small number of included patients, the design as a comparative case series study instead of a randomized trial, and the fact that refractive error can be better determined at a later age. This series provides another premise for a randomized prospective clinical trial.⁴

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Significant Treatment Failure With Intravitreal Bevacizumab for Retinopathy of Prematurity

The mainstay of treatment for retinopathy of prematurity (ROP) with risk of retinal detachment has been ablation of peripheral avascular retina through cryotherapy or laser.^{1,2} Because ablative treatments are destructive and treatment often requires intubation and anesthesia in neonates with

comorbid conditions, there has been interest in alternative treatments. Intravitreal bevacizumab injection is an emerging treatment that can be performed with minimal sedation. The BEAT-ROP study³ demonstrated a significant benefit of bevacizumab over laser in reducing treatment-requiring recurrence by 54 weeks. Given that recurrence in eyes treated with bevacizumab occurred later, at a mean (SD) of 16.0 (4.6) weeks after treatment, than in eyes treated with laser, at a mean (SD) of 6.2 (5.7) weeks after treatment, the time course of recurrence and progression of ROP is likely altered. Thus, late recurrences may not have been detected by the study.⁴ Herein, we report a case of significant treatment failure after bevacizumab monotherapy.

Report of a Case. A 560-g neonate, born prematurely at 23 weeks' postmenstrual age, was noted to have stage 3 ROP in zone 1 at postmenstrual age 34 weeks. Following informed consent, off-label intravitreal bevacizumab (0.625 mg) was injected into each eye. The patient was then examined every 1 to 2 weeks. Posterior fibrotic tissue was noted first at 48 weeks, and fine vascularity appeared at 50 weeks. Retinal detachment (stage 4a ROP) in the right eye was present at 52 weeks, and the patient was referred by the original treater to our service for surgical intervention. Unfortunately, the patient did not appear for treatment and state department of family services intervention was required to bring the patient to our service, which occurred at 57 weeks. At that time, both retinas were completely detached (stage 5) with fibrovascular tissue immediately posterior to the lens (**Figure 1** and **Figure 2**).

Comment. Retinopathy of prematurity is a proliferative retinal vascular disorder associated with local ischemia and subsequent extraretinal fibrovascular proliferation and tractional retinal detachment. Current standard treatment involves ablation of avascular retina,^{1,2} but recent studies^{3,5} have shown intravitreal bevacizumab monotherapy to be an effective treatment for ROP.

Despite promising results with intravitreal bevacizumab monotherapy, we believe this case demonstrates that caution must be taken when using bevacizumab. Clearly the progression of ROP is altered, with initial regression but possible recurrence as the effect declines over time. Unfortunately, the timing and rapidity of onset are not well characterized. Moreover, the location and pattern of recurrence may also be altered. Our patient displayed a posterior rather than anterior recurrence that progressed rapidly to retinal detachment.

Although not strictly medical failure, lapses in parental compliance with an extended burden of follow-up may play an important role in outcome and therefore the treatment choice. It is our belief that laser, despite causing less rapid regression of disease, induces a more permanent response because it destroys the source of vascular endothelial growth factor. Additionally, laser induces some retinal adhesion that may slow the effect of contracting fibrovascular tissue, and the recurrence pattern is more

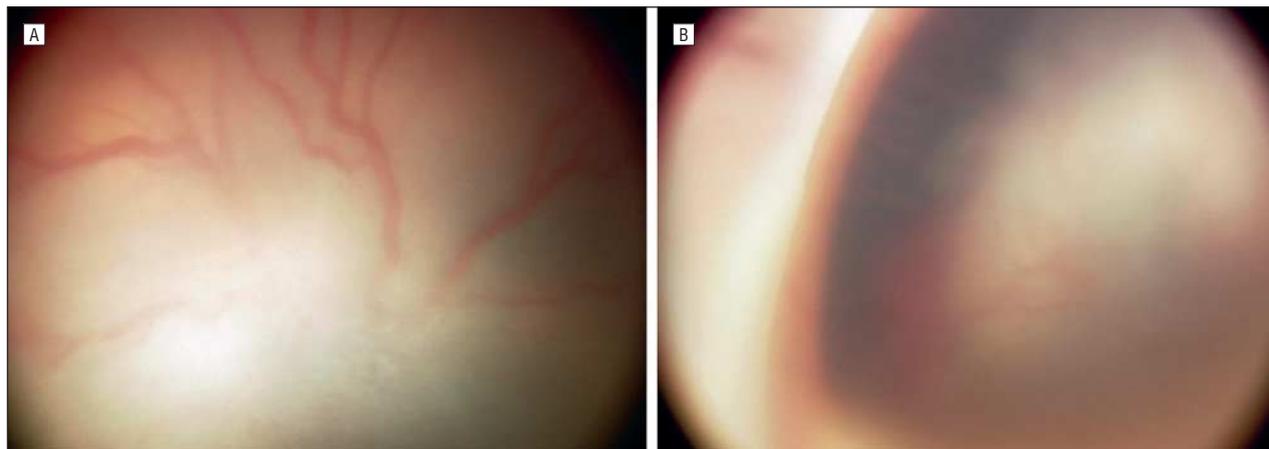


Figure 1. Photographs of the right (A) and left (B) eyes demonstrating fibrovascular tissue and retinal detachment in the retrolental location.

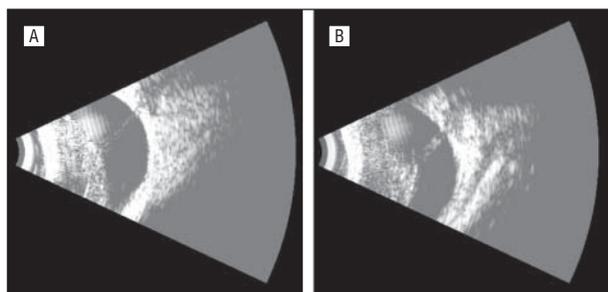


Figure 2. Ultrasonographic images (12 MHz) demonstrating tight funnel-shaped retinal detachment in the right (A) and left (B) eyes.

clearly defined and thus easier to detect. Clearly laser has its deficiencies, but we are concerned that the dramatic early effects of bevacizumab may lead to an underappreciation of its own limitations. We believe treatment success can be considered final not after the early response but only after there is complete retinal vascularization. This case and others that will likely follow should allow a more complete and balanced perspective. In our experience, laser after bevacizumab treatment seems to reduce severe complications, but further study is required to evaluate combined treatment.

This case serves as a warning to clinicians that extensive, long-term, careful follow-up and prompt subsequent intervention are needed in infants treated with intravitreal bevacizumab.

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Endogenous Endophthalmitis Caused by *Salmonella* Serotype B in an Immunocompetent 12-Year-Old Child

Salmonella is a rare cause of endogenous endophthalmitis.¹⁻⁴ We describe a healthy child who developed severe endogenous *Salmonella* endophthalmitis after an episode of self-resolved gastroenteritis. In a literature search, no other cases are described with this clinical history in an immunocompetent patient.

Report of a Case. A 12-year-old boy with unremarkable medical, ocular, and family history had sudden-onset, rapidly progressive vision loss in the left eye for 2 days. His initial visual acuity was light perception and he had mild pain. The right eye was normal. Ten days prior to his initial visit, he reported a 4-day history of fever reaching a temperature of 38.9°C and a diarrheal illness that was treated at home with oral fluids and not medically evaluated. A history of consuming possibly undercooked chicken wings was elicited. At the initial visit, his vital signs were stable and the diarrhea had resolved.

Intravitreal tap and injection of vancomycin hydrochloride, 1 mg, ceftazidime, 2.25 mg, and dexamethasone sodium phosphate, 0.4 mg, was performed on the