SAFER-ROP: Updated Protocol for Anti-VEGF Injections for Retinopathy of Prematurity

Beck KD, Rahman EZ, Ells A, Mireskandari K, Berrocal AM, Harper CA 3rd. *Ophthalmic Surg Lasers Imaging Retina*. 2020;51(7):402-406. doi:10.3928/23258160-20200702-05

Retinopathy of prematurity (ROP) is one of the leading, yet treatable causes of childhood blindness in the United States and worldwide. This study describes a safe and dependable protocol for intravitreal anti-vascular endothelial growth factor injections to treat ROP.



SAFER is an acronym used to describe the injection protocol for the treatment of retinopathy of prematurity (ROP).

Injection (

(S)hort needle 4-mm length

32-gauge 4.0-mm TSK SteriJect needle

(A)ntiseptic/antibiotic 5% to 10% topical betadine

Metadine 5% or 10% both before and after treatment

2 days

(F)ollow-up 48 to 72 hours post-injection

2 to 7 days post-injection to examine for injection complications

(E)xtra attention to detail clean environment, injection site 0.75 to 1.0 mm posterior to limbus

- Maintain clean environment (gloves, masks, single-use caliper, and eyelid speculum)
- Assess for conjunctivitis and nasolacrimal duct obstruction prior to injection
- Determination of safe injection site 0.75 to 1.0 mm posterior to limbus using the ora nonogram

1 week

(R)echeck 1 to 2 weeks following injection and until mature vascularization or laser

- 1 to 2 weeks following injection and until mature vascularization is complete
- Laser avascular areas if necessary

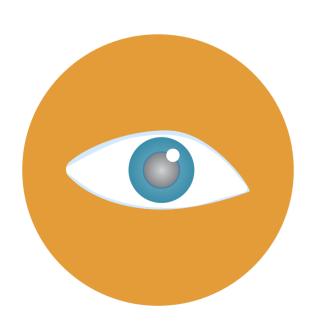
60 weeks Use fluorescein angiogram for all treated patients between 60 to 65 weeks postmenstrual age if not vascularized



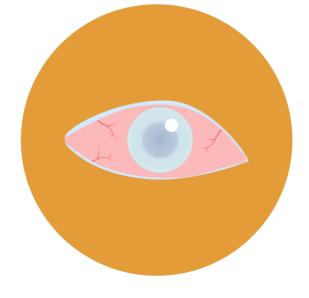
No cases of cataract formation, endophthalmitis, or vitreous hemorrhage using this technique were reported in a recent retrospective chart review.

Both Austin Retina Associates and Bascom Palmer Eye Institute safely performed this technique employing the 4-mm, 32-gauge needle with 220 infants enrolled in the study.

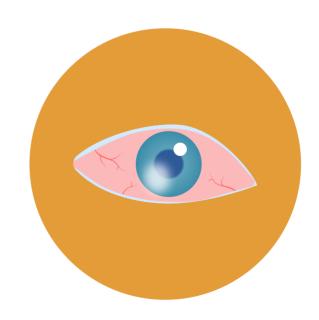
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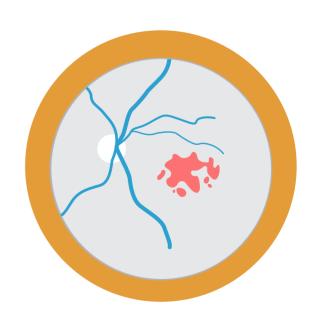
Cataract



Endophthalmitis



Corneal infection



Vitreous hemorrhage



Conclusions

This protocol is a safe way to inject anti-vascular endothelial growth factor and to monitor ROP progression following injection.