ROP: We Just Called To Say We Don't Love You
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"No summer's high. No warm July. No harvest moon to light one tender August night. No autumn breeze. No falling leaves. Not even time for birds to fly to southern skies." - Stevie Wonder, "I Just Called To Say I Love You"

Stevie Wonder, born Stevland Hardaway Judkins, on May 13, 1950, is arguably one of the greatest American singer-songwriter/musicians of all time. Of his many hits, "I Just Called To Say I Love You" is a personal favorite, with beautiful lyrics that are able to evoke the sensations of the seasons. It's often said that the loss of one of the senses leads to sharpening of others, and this is poignantly reflected in Stevie Wonder's song-writing abilities. Despite his blindness, his lyrics produce the warmth of the sun on bare skin, the sounds of rustling leaves in the breeze, and even the vision of blue skies fading into golden sunsets.

Stevie Wonder lost his vision shortly after birth, reportedly from retinopathy of prematurity (ROP). According to various reports, he was born six weeks premature, and hospitalized in the neonatal intensive care unit, where he did receive oxygen therapy. In the early 1950s, little was known about the long-term adverse effects of hyperoxia on preterm neonates, as ROP (as it is known today) had just been described by Dr. T.L. Terry in 1942 (named "retrolental fibroplasia").

At that time, high levels of oxygen exposure were common for preterm infants, and these practices led to an explosion in ROP incidence and long-term visual consequences, including blindness, in ex-preterm infants. Following, there was a growing body of evidence in clinical cohorts and animal models that showed increased duration and concentration of oxygen exposure was a causative factor for ROP. In 1954, the American Academy of Ophthalmology and Otolaryngology recommended minimizing oxygen use in preterm infants. This, unfortunately, would prove too late to help Stevie Wonder.

However, since that time, there have been peaks and nadirs in the incidence of ROP, often corresponding to advancements in neonatal care, both in the United States and worldwide. Accordingly, there have been evolving guidelines on who and when to screen, based on epidemiologic data that determine the highest-risk populations. In the 1990s, the United States recommended ROP screening for all infants born before 34 weeks' gestation, but the latest revision (2013) recommends screening infants born <30 weeks' gestational age or <1,500 grams birth weight, or infants with an unstable clinical course with a birth weight between 1,500 and 2,000 grams or gestational age > 30 weeks.

However, as history teaches us, an understanding of the disease pathophysiology and context of the population being screened are both essential in order to understand newer studies on screening algorithms and newer treatment options, such as anti-vascular endothelial growth factor injections. The articles in February NeoReviews, "Identification and Treatment of Retinopathy of Prematurity: Update 2017," written by Drs. Sharma and Vanderveen, and "Challenges and Future Directions in the Detection and Treatment of Retinopathy of Prematurity," by Dr. Quinn, provide an excellent solution for this need.

1Fierson WM; American Academy Section on Ophthalmology; American Academy of Ophthalmology; American Association for Pediatric Ophthalmology and Strabismus; American Association of Certified Orthoptists.