

Cancer drug helping preemie babies fight eye disease



A well-known cancer treatment has shown benefits in managing premature infants at risk of an eye disease that can lead to retinal detachment and blindness.

Recently published in the *New England Journal of Medicine*, the study of 150 infants found that a one 'off-label' injection of bevacizumab (Avastin) is better for managing retinopathy of prematurity (ROP) and has fewer adverse consequences than the current standard of laser treatment.

ROP occurs when blood vessels grow abnormally from the retinal surface into the central gel of the eye. They can then pull the retina out of position, causing retinal dragging or a retinal detachment which is the main cause of visual impairment and blindness in ROP.

Speaking at the Asia Pacific Academy of Ophthalmology (APAO) Congress, Dr Helen Mintz-Hittner, a paediatric ophthalmologist at the University of Texas Health Science Center, said bevacizumab treatment is an inexpensive, two-minute procedure at the bedside followed by eye drops to prevent infection for a few days.

"In contrast, laser treatment requires expensive laser equipment, a laser ready operating room and intubation of the infant. The procedure takes about two hours followed by eye drops to prevent inflammation for weeks," she added.

"Infants inevitably lose some peripheral field vision and often develop myopia (short-sightedness). Complications can also include cataracts and glaucoma," said Dr Mintz-Hittner.

Dr Mintz-Hittner studied infants born at 30 weeks gestation or less and weighing up to 1,500 grams. Half received the standard laser treatment and half were treated with an injection of bevacizumab into the eye.

She found the rate of recurrence of ROP in bevacizumab treated infants was 4 per cent compared to 22 per cent following laser treatment. A second dose of bevacizumab usually resolved any recurrences in the drug treated group of infants.

Retinal imaging confirmed permanent damage to the peripheral retinas following laser treatment and continued growth of normal retinal vessels with no retinal damage in the bevacizumab treated eyes.

"The critical issues with bevacizumab are appropriate timing and sterility. If used too early, bevacizumab can prevent normal development of the retina resulting in retinal dystrophy. If used too late, bevacizumab can accelerate retinal detachment," said Dr Mintz-Hittner.

Dr Mintz-Hittner, said the relatively simple procedure and low cost of bevacizumab injections for ROP meant it could also be readily adopted by developing countries.

"ROP is a significant risk in all premature infants but is exploding in developing countries of Asia, Africa, South America, and Eastern Europe where they are just starting to save these babies.

"A telemedicine model of care using retinal imaging to assess the stage of disease and trained nurse practitioners to deliver the injections could make a significant difference to the vision outcomes for premature infants in resource poor areas," she said.

Dr Mintz-Hittner said her research group will continue to monitor vision in the treated infants over five years while new research may focus on refining the optimal dose for treatment.

Bevacizumab is already used in other eye conditions such as age-related macular degeneration and diabetic retinopathy.

(Source: [Asia Pacific Academy of Ophthalmology Congress: *New England Journal of Medicine*](#))

Cancer Drug May Help Prevent Blindness for Preterm Infants

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[Cancer Drug May Help Prevent Blindness for Preterm Infants -Image via Wikipedia](#)

[A new study has discovered that an inexpensive cancer drug may help prevent blindness for preterm infants who were born before their eyes developed completely.](#)

[The research, to be published this week in the New England Journal of Medicine, showed that a single injection of Avastin into premature babies' eyes prevented blindness more effectively than laser surgery, which is the a conventional treatment in fixing a leading cause of blindness.](#)

[The researchers of the study, led by Helen Mintz-Hittner, an ophthalmology professor at the University of Texas Health Science Center at Houston Medical School, also said that babies who were born 30 weeks of gestation have immature eyes and are at high risk of developing a condition called retinopathy of prematurity that is caused by uncontrolled growth of blood vessels in the eye, which causes blindness.](#)

[“It’s a major clinical setback” for a baby whose tube may have just been removed,” said Dr. Mintz-Hittner, referring to the traditional laser therapy, which damages a child’s vision and requires sedation and a breathing tube.](#)

[However the researchers noted that further study is needed because there were too few babies in their study to prove whether the injections were safe.](#)

[Diseases and Conditions](#), [Health News](#) - Written by [Jeffrey](#) on Thursday, February 17, 2011 10:51 - [0 Comments](#)

Cancer Drug Might be the Answer to Blindness Among Premature Babies

According to a study published in *The New England Journal of Medicine*, **Avastin, the cancer drug**, can help in preventing blindness in **premature babies**. Around 50,000 people are blind because of the condition called retinopathy of prematurity or ROP. Legendary singer Stevie Wonder was also affected by the same condition.



The study says that just one injection of Avastin drug into premature babies' eyes can effectively prevent the blindness. The common method used to rectify this condition is the [laser surgery](#). The study observed 150 infants with advanced retina damage and who had undergone one of the two treatments: Surgery or Avastin. **6% infants who had taken Avastin injection had recurrence of ROP against 42% babies treated through the surgery.**

According to **Helen Mintz-Hittner of University of Texas Health Science Center and the lead author**, says this procedure is light, quick and easy to use on delicate premature babies. **The study is published in *The New England Journal of Medicine*.**