

SIGHT FOR SORE EYES

An Indian doctor ventures into the rural hinterland to save underweight babies from a deadly eye disease

The neo-natal clinic at the government hospital in Mandya, 90 km from Bangalore, is surprisingly clean as ophthalmologist Anand Vinekar, 35, wheels in a Retcam, a cutting-edge diagnostic device the size of a television set. Vinekar then pulls out what looks like a hair dryer from the device. The 'hair dryer' is really an advanced camera and Vinekar points it into the eye of a newborn, imaging the infant's retina to check for Retinopathy of Prematurity (ROP).

Vinekar is on a self-ordained mission, and ROP is the enemy. ROP— which happens when the blood vessels of the retina fail to grow completely—usually leads to blindness. It manifests itself within three to four weeks of birth and causes complete retinal detachment in six to eight weeks, mostly in premature babies.

But all the news isn't bad, and that's what drives Vinekar. Screening and treatment yields more than 90 per cent success in vision preservation. The Indian ROP experience indicates that babies weighing less than 2 kg must be screened by an ROP-trained specialist in their first month. This assumes even more importance when we consider that 27 million babies are born prematurely every year in India. Vinekar, who started his work in 2007, says eight per cent of them are at risk of ROP.

Treatment for ROP is with laser technology but time is of the essence. Because babies are sensitive, the window of treatment is a few hours rather than days or weeks. Vinekar has help, though, having tapped both state and Central government fund-



DR VINEKAR USES THE RETCAM TO DETECT ROP IN AN INFANT'S EYES

BLINDNESS AT BIRTH

Retinopathy of Prematurity is a potentially blinding disease that affects premature infants when normal blood vessels fail to complete their growth cycle. The untreated disease can result in permanent blindness.

Cause for Alarm Nearly 50,000 children are blind from ROP worldwide. ROP in India varies from 38 to 52 per cent in low birth-weight infants and it is estimated that the number of babies requiring screening is between 65,000 and 1,30,000 each year. Ten to 15 per cent of these have the potential of going completely blind if not treated for ROP.

ing through National Rural Health Mission (NRHM) to implement the diagnosis and treatment model in rural parts of the state. "We found this an innovative project and hence decided to partner with it to cure early infant blindness," says NRHM Director S. Selva Kumar, an IAS officer on deputation to the mission.

In 2010, NRHM gave the thumbs up to Vinekar's Rs 2-crore project called

Kidrop (Karnataka state Internet assisted diagnosis of ROP) to train a set of technicians and government doctors in a unique private-public partnership model. Kidrop now operates in six backward districts of north Karnataka. Vinekar's team from Bangalore's Narayana Nethrayala has screened nearly 3,000 infants so far, treating over 200 of them and obtaining more than a lakh images.

Vinekar, who was inspired to specialise in ophthalmology after he heard about his grandfather whose retina almost popped when a suitcase fell on his head, has pursued his mission with determination through St. John's Medical College in Bangalore to postgraduate studies in Chandigarh to working in Michigan, US. Vinekar has been invited to speak about Kidrop in countries like Ghana, Sri Lanka and Thailand.

With less than 400 trained retinal surgeons and just 20 centres capable of ROP screening and management services, India's challenge lies in using limited resources for screening and treatment in the disadvantaged interiors. The alternative is a descent into darkness.

by Stephen David