

Retinopathy of Prematurity-Experience from a Secondary Care Center

Retinopathy of prematurity (ROP) is an emerging cause of blindness. Few data are available from secondary care centres. Analyses of the incidence and risk factors for ROP from a secondary care center indicate that the incidence (19.7%) is higher than that noted in tertiary care centers. This highlights the need to screen even big preterms (>1500 g or >32 wks) born at these centers for ROP.

Key words: Retinopathy, Prematurity.

We conducted this study to evaluate the incidence and risk factors of retinopathy of prematurity in a secondary care setting in newborns <37 weeks of gestation and or birthweight <2000 g born between August 2009 and October 2010.

The initial ocular examination was carried out as per protocol between 4th and 7th week after birth by a single ophthalmologist. The findings were noted as per the guidelines of International Classification of Retinopathy (ICROP) [1].

A total of 84 infants were studied. Of these, 3 died and were excluded. ROP was present in 16/81 (19.7%), of whom 4 infants had stage 3 ROP or greater. The incidence of ROP requiring surgery was 4 (4.9%). The incidence of ROP in survivors <28 weeks was 67%. Seventy five per cent of threshold ROP requiring surgery occurred in infants <28 weeks gestation at birth. There was one stage 3 ROP in an infant >32 weeks gestation. The baby had eventful neonatal period during the stay. For infants <1000 g, the incidence of ROP of any degree was 50% (3/6), of whom 33% had threshold ROP. The birthweight and gestational age were significant risk factor for ROP ($P<0.001$). Sepsis, duration of neonatal ventilation, and duration of oxygen therapy, gender distribution, mode of delivery and PIH during pregnancy were not statistically significant.

Earlier studies from Delhi, Pune, and Bangalore showed 11-12% incidence of ROP tertiary care centers in [2-4], which was much lower than our observation. Concerns are growing about the need to screen bigger newborn babies for ROP [5,6]. Our study emphasizes the need to also screen preterm babies >32 wk and >1500 g also, especially in secondary care centers.

Acknowledgments: Dr Priya Amitabh and Ms Prakriti Sinha for inputs.

**RAJIV SHARAN, ABHAYANCHAL K JHA,
*BHIBHUTI BHUSAN AND S NATH**

*Tata Motors Hospital and *Vishnu Netralaya Hospital,
Jamshedpur,
Jharkhand, India.
rajiv.sharan@tatamotors.com*

REFERENCES

1. Early Treatment for Retinopathy of Prematurity Cooperative Group. Revised indications for the treatment of retinopathy of prematurity. Results of the early treatment for retinopathy of prematurity randomized trial. *Arch Ophthalmol.* 2003;121:1684-94.
2. Kumar P, Sankar MJ, Deorari A, Azad R, Chandra P, Agarwal R, *et al.* Risk factors for severe retinopathy of prematurity in preterm low birth weight neonates. *Indian J Pediatr.* 2011;78:812-6.
3. Chaudhari S, Patwardhan V, Vaidya U, Kadam S, Kamat A. Retinopathy of prematurity in a tertiary care center – incidence, risk factors and outcome. *Indian Pediatr.* 2009;46:219-24.
4. Rekha S, Battu RR. Retinopathy of prematurity: incidence and risk factors. *Indian Pediatr.* 1996;33:999-1003.
5. Shah PK, Narendran V, Kalpana N, Gilbert C. Severe retinopathy of prematurity in big babies in India: history repeating itself? *Indian J Pediatr.* 2009;76:801-4.
6. Azad R, Chandra P, Patwardhan SD, Gupta A. Importance of the 'third criterion' for retinopathy of prematurity screening in developing countries. *J Pediatr Ophthalmol Strabismus.* 2009;46:332-4.