

To remove the buckle or watch?

*Kunal K Shah, Ekta Rishi, Pramod Bhende,
Pukhraj Rishi, Tarun Sharma*

Scleral buckling is one of the most effective modality for treatment of rhegmatogenous retinal detachment and in selected cases of retinopathy of prematurity. Although quite safe, it has its own set of associated morbidities. This report presents an interesting case, where the scleral buckle migrated posteriorly reaching up to the optic nerve.

Key words: Buckle migration, retinopathy of prematurity, scleral buckle

Despite the major advances in instrumentation and wide-field illumination system of vitrectomy surgery, scleral buckle still plays a major role in repair of Stage 4b retinal detachment in retinopathy of prematurity (ROP). Postoperative complications such as refractive changes because of the alteration in shape of eyeball, infection, buckle extrusion or intrusion, anterior

and posterior segment ischemia, secondary strabismus, and associated diplopia are known.^[1] These bands are cut or removed after 6–9 months to allow the normal growth of the globe and reduce the myopic shift. We present a case of posterior migration of silicone buckle causing impingement of optic nerve head.

Case Report

A 5-year-old boy presented 4.5 years after his scleral buckling surgery for Stage 4b ROP in the right eye. He had a vision of 6/48 in the right eye and no perception of light in the left eye. Right eye had a refraction of -11.00DS with attached retina, dragged vessels, scarring at macula along with posterior indentation of buckle visualized next to the optic disc [Fig. 1], left eye was pre phthisical with total retinal detachment. The child born of a twin gestation at 27 weeks had birth weight of 800 gm with Stage 4b ROP in the right eye and Stage V ROP in the left eye in 2013. He had earlier undergone scleral buckling surgery in the right eye with 276 silicone element placed temporally with two anchoring sutures, one on either side of the lateral rectus, along with 240 encircling band anchored with scleral tunnels. Parents were advised band cutting/buckle removal as the buckle was found indenting the optic nerve on ultrasound B scan [Fig. 2], but they refused.

Discussion

Scleral buckling is proven to be an effective treatment for the management of selected group of Stage 4 ROP eyes.^[2]

Access this article online	
Quick Response Code:	Website: www.ijjo.in
	DOI: 10.4103/ijjo.IJO_712_18

Shri Bhagwan Mahavir Vitreoretina Services, Medical Research Foundation, Sankara Nethralaya, Chennai, India

Correspondence to: Dr. Ekta Rishi, Shri Bhagwan Mahavir Vitreoretina Services, Medical Research Foundation, Sankara Nethralaya, No 18, College Road, Nungambakkam, Chennai - 600 006, India. E-mail: ek_and@yahoo.com

Manuscript received: 01.05.18; **Revision accepted:** 18.11.18

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

Cite this article as: Shah KK, Rishi E, Bhende P, Rishi P, Sharma T. To remove the buckle or watch? Indian J Ophthalmol 2019;67:973-4.

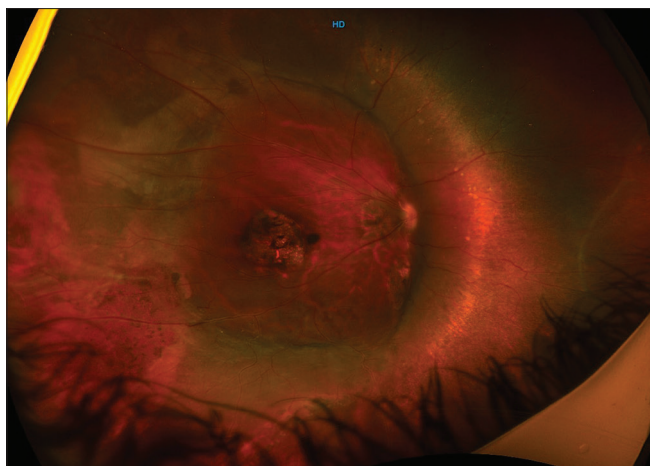


Figure 1: Wide field OPTOS fundus photograph of the right eye showing attached retina with dragged vessels, tilted disc with disc drag, and RPE atrophic patch seen adjacent to fovea. Prominent posterior buckle effect seen nasally abutting the optic nerve head

There are reports of buckle migration anteriorly through 4 recti muscles,^[3] sometimes eroding the overlying conjunctiva and extruding through the upper lid^[4] or even migrating up to the cornea leading to corneal groove formation.^[5] Buckle may even migrate posteriorly causing impingement of optic nerve head.^[6]

Discussion

In children with ROP there is concern of increasing myopia and impaired growth of the globe. Buckle removal surgery is complicated, especially if abutting the optic nerve, but the risk of further compression on optic nerve continues to haunt the clinician during follow-ups.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

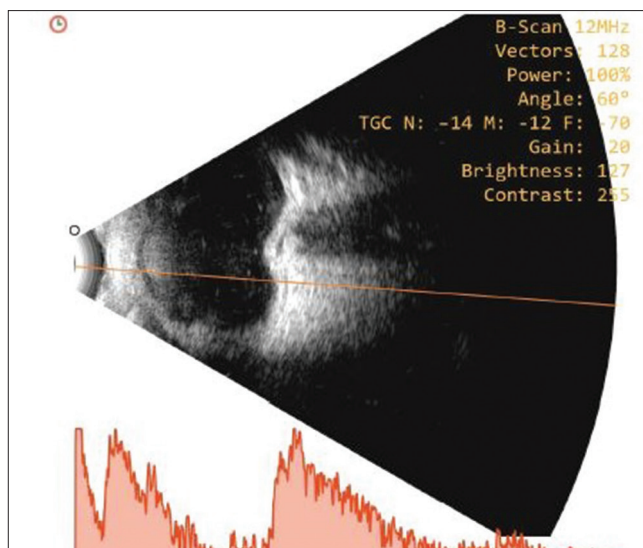


Figure 2: Ultrasound B scan with A scan vector image showing attached retina with posterior globe indentation. A hyporeflective space outside the ocular coats adjacent to ONH shadow causing retino-choroidal elevation suggestive of posteriorly migrated scleral buckle

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Papakostas TD, Vavvas D. Postoperative complications of scleral buckling. *SeminOphthalmol* 2018;33:70-4.
2. Chuang YC, Yang CM. Scleral buckling for stage 4 retinopathy of prematurity. *Ophthalmic Surg Lasers* 2000;31:374-9.
3. Lanigan LP, Wilson-Holt N, Gregor ZJ. Migrating scleral explants. *Eye LondEngl* 1992;6:317-21.
4. Khan AA. Transpalpebral extrusion of solid silicone buckle. *Oman J Ophthalmol* 2009;2:89-90.
5. Osman Saatci A, Durak I, Tongal S, Ergin M. An extruded encircling band straddling the cornea and corneal groove formation. *Ophthalmic Surg Lasers* 1998;29:991-2.
6. Hilton GF, Wallyn RH. The removal of scleral buckles. *Arch Ophthalmol Chic Ill* 1960 1978;96:2061-3.