

# Scleral Buckling in Vitrectomy Era

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## **Abstract**

**Introduction:** *Since the introduction of vitrectomy by Machemer over four decades ago, scleral buckling is started to be neglected because of the easiness of vitrectomy. As the advancement of vitrectomy and viewing system since it was introduced, the trend of the scleral bulking procedure is going lower recently.*

**Methods:** *We conduct a literature review of scleral buckling compared with vitrectomy in the term of the result, safety and cost-effectiveness. The learning curve and practical issues also be reviewed*

**Result:** *Although started less popular, scleral buckling still considered as effective, low cost and high success result procedure*

**Conclusion:** *SB remains the method of choice in uncomplicated retinal situations, in the term cost effectiveness. Innovations such as combining with PR, chandelier, sutureless et cetera can be used in SB surgery to overcome the high skill needed, especially for a beginner. However, despite the cost, with the recent advancement, PPV is still the method of choice in complicated cases where the SB meets its limitation*

*Keyword: Scleral Buckling, Vitrectomy pars plana, Retina Surgery*

## **Introduction**

As introduced by Custodis, scleral buckling considered as the main stay of retinal detachment surgery.<sup>1</sup> This technique has a very good rate of success, with efficient equipment needed. However, since the introduction of vitrectomy by Machemer over four decades ago, scleral buckling is started to be neglected because the easiness of vitrectomy.<sup>2</sup> As the advancement of vitrectomy and viewing system since it was introduced around fifty years ago, the trend of the scleral bulking procedure is going lower recently. This paper intended to describe the comparison of scleral buckling with vitrectomy, and the using of scleral buckling in vitrectomy era.

## **Literature Review**

The global survey conducted by ASRS on 2015 shows most of the surgeon using VPP more than SB in they practice. Only in Latin America region having more 15% responder that using SB 60% on the daily practices. Moreover, in Asia Pacific region, almost 70% that was only using SB less than 20 percent of daily practices.<sup>3</sup>

On the same survey on 2017, the data is even more lower. In Europe, only 61 percent the respondent that are using SB on 20 percent of their practice comparing to 72 percent on 2015 as mentioned before. The similar result also found in Asia