• Review Article •

How much vitrectomy is enough? A narrative review

Fatih Ali Ceylan

Department of Ophthalmology, Gaziantep City Hospital, Gaziantep 27630, Türkiye

Correspondence to: Fatih Ali Ceylan. Department of Ophthalmology, Gaziantep City Hospital, Ibni Sina Ozdemirbey Street Sahinbey, Gaziantep 27630, Türkiye. fatihali.ceylan@gmail.com

Received: 2026-03-21 Accepted: 2026-05-11

Abstract

● The optimal extent of vitreous removal in modern vitreoretinal surgery remains controversial. While extensive vitrectomy has traditionally been performed to minimize traction and reduce postoperative complications, emerging evidence challenges its routine use across all indications. This narrative review critically evaluates whether extensive vitreous removal provides superior outcomes compared to limited, vitreous-sparing approaches. Current data do not demonstrate a consistent or clinically meaningful advantage of extensive vitrectomy. Although broader vitreous removal may reduce residual traction, it is associated with increased intraoperative manipulation and a higher risk of iatrogenic retinal injury, particularly during peripheral vitreous shaving. In contrast, limited vitrectomy appears sufficient in macular surgery and selected cases of rhegmatogenous retinal detachment, especially with advances in microincisional techniques, high-speed cutters and improved visualization systems. In complex tractional diseases, however, more extensive dissection may still be required. Overall, the available evidence supports a selective, pathology-driven approach rather than routine extensive vitreous removal, reflecting a shift toward more precise and minimally invasive vitreoretinal surgery.

● **KEYWORDS:** vitrectomy; retinal detachment; macular surgery; vitreous; surgical techniques; complications

DOI:10.18240/ijo.2026.10.20

Citation: Ceylan FA. How much vitrectomy is enough? A narrative review. *Int J Ophthalmol* 2026;19(10):2041-2046

INTRODUCTION

Pars plana vitrectomy has evolved from invasive large-gauge surgery to microincisional, high-speed systems[1-2]. Despite these advances, a fundamental question remains unresolved: how much vitreous removal is necessary?

Extensive vitrectomy, including peripheral vitreous shaving, has traditionally been performed to minimize traction and reduce complications such as retinal detachment and proliferative vitreoretinopathy[3]. However, this approach is largely based on theoretical assumptions rather than robust evidence[4].

Recent data suggest that increased surgical extent may also increase intraoperative manipulation and iatrogenic retinal injury, particularly during peripheral shaving[5-10]. In parallel, limited vitrectomy has gained attention, demonstrating comparable outcomes in selected indications[11-15].

Given the lack of standardized definitions and disease heterogeneity, the optimal extent of vitrectomy remains unclear. This review evaluates current evidence and examines whether a tailored approach may be more appropriate than routine extensive vitreous removal. In contrast to prior literature that often favors extensive vitreous removal, it suggests a shift toward a more selective, indication-driven strategy that prioritizes surgical necessity over procedural completeness.

Concepts and Definitions A major limitation in the literature is the lack of standardized terminology describing the extent of vitreous removal. Terms such as “complete”, “core”, and “limited” vitrectomy are inconsistently defined.

Core vitrectomy can be described as a procedure primarily targeting the central vitreous gel while intentionally avoiding extensive peripheral intervention. In contrast, complete vitrectomy generally encompasses both induction of posterior vitreous detachment (PVD) and deliberate dissection of the peripheral vitreous base. In the context of this review, the term extensive vitrectomy is used to describe what has traditionally been referred to as “complete vitrectomy”. Limited vitrectomy describes a conservative approach aimed at addressing pathology with minimal manipulation[16].

Importantly, from an anatomical perspective, absolute anatomical removal of the vitreous is inherently impossible; therefore, surgical extent is more appropriately viewed along a continuum rather than as a strictly binary concept[4].

The Debate: Extensive versus Limited Vitrectomy The optimal extent of vitreous removal can be conceptually framed as a balance between two principal strategies: extensive vitrectomy and limited, individualized vitrectomy. These

approaches reflect differing priorities in surgical philosophy, ranging from maximal traction elimination to minimization of iatrogenic risk.

Case for extensive vitrectomy and peripheral shaving Historically, extensive vitreous removal has been considered the standard approach to eliminate vitreoretinal traction. Proponents of this strategy emphasize that broader vitreous removal may reduce residual tractional forces and improve anatomical stability.

Meticulous peripheral vitreous shaving, particularly under scleral indentation, has been advocated in complex conditions such as rhegmatogenous retinal detachment (RRD) and proliferative vitreoretinopathy. This approach has been further facilitated by wide-angle viewing systems, which improve visualization of the peripheral retina and enable more thorough vitreous base shaving. In addition, the development of high-speed vitrectomy cutters and advanced fluidics allows more controlled dissection in complex cases such as diabetic vitreoretinopathy, where extensive membrane removal is required[3,17]. While these technological advances enhance the feasibility of extensive vitreous removal, they primarily serve to mitigate the risks associated with increased intraoperative manipulation.

Case for limited and ındividualized vitrectomy In contrast, modern vitreoretinal surgery has increasingly shifted toward a pathology-driven, individualized approach. This “less is more” philosophy has been supported by the evolution of microincisional vitrectomy systems (23-, 25-, and 27-gauge), which reduce surgical trauma, postoperative inflammation and recovery time, making limited vitrectomy a safer and more practical option in selected cases.

One of the main advantages of this strategy is the reduction of iatrogenic complications. Excessive peripheral vitreous shaving, particularly in phakic eyes, is associated with lens damage and iatrogenic retinal breaks[5-8]. In macular surgery (epiretinal membrane and macular hole), ultrahigh cut-rate systems reduce vitreoretinal traction during core vitrectomy, allowing surgeons to achieve comparable anatomical success without the need for risky peripheral dissection[11-14,18]. Similarly, in elective conditions such as symptomatic vitreous floaters, the use of advanced fluidics and high-speed cutters ensures procedural safety during limited vitreous removal, supporting a conservative approach when peripheral pathology is absent[16,19].

Evidence by Indication The following sections further evaluate these two approaches across different clinical indications. The impact of surgical extent appears to be highly dependent on disease-specific mechanisms rather than a uniform principle applicable across all vitreoretinal conditions.

Rhegmatogenous retinal detachment Historically, peripheral vitreous shaving as part of a more extensive vitrectomy has been regarded as a key step in RRD repair to relieve traction, identify occult breaks and reduce recurrence. However, more recent studies suggest that less extensive approaches may yield comparable anatomical success in selected cases, particularly in uncomplicated or pseudophakic RRD[15,20].

Importantly, intraoperative retinal breaks are frequently reported during peripheral vitreous shaving, raising concerns that routine aggressive dissection may introduce additional risk[5-8]. In complex RRD, extensive vitrectomy may improve anatomical outcomes in selected series when combined with modern high-speed vitrectomy systems; however, these findings are derived from selected high-risk cases and cannot be generalized to all RRD scenarios[3].

These findings support a selective rather than routine use of extensive vitrectomy in RRD surgery.

Macular surgery In macular surgery, such as epiretinal membrane and macular hole, pathology is typically localized to the posterior pole; therefore, extensive vitrectomy may not be required[21].

Multiple studies have demonstrated that limited vitrectomy provides comparable anatomical and functional outcomes to more extensive approaches[11-14]. In these procedures, PVD induction represents the key surgical step, whereas extensive vitrectomy has not been shown to improve outcomes[11-14].

Avoiding unnecessary peripheral manipulation may reduce the risk of iatrogenic retinal breaks without compromising surgical efficacy, supporting a conservative approach in macular indications[18].

Diabetic vitrectomy In diabetic vitreoretinopathy, the extent of vitrectomy depends on the distribution of fibrovascular proliferation and tractional pathology. Unlike macular surgery, more extensive vitreous dissection is often required to adequately relieve traction and facilitate membrane removal[17].

However, extensive vitrectomy is not uniformly necessary and should be guided by the location and severity of pathology. Excessive manipulation in ischemic and fragile retinas may increase the risk of intraoperative bleeding and retinal injury[17]. Therefore, a targeted rather than uniformly extensive approach appears more appropriate in diabetic vitrectomy.

Vitreous floaters The management of symptomatic vitreous floaters has been a major driver of interest in limited vitrectomy[4,16]. In the absence of retinal pathology, the primary goal is symptom relief rather than traction elimination.

Limited vitrectomy has demonstrated favorable safety and efficacy profiles[16,19]. However, residual vitreous may lead to persistent or recurrent symptoms, reflecting a trade-off between completeness and safety[22-23].

Table 1 Summary of key studies comparing extensive versus limited vitrectomy

Study (y)	Study type	Condition	Approach	Key findings/conclusions
Boneva *et al* (2025)[23]	Clinical study	Myodesopsia	Limited	Limited vitrectomy provides significant symptomatic relief compared to observation
Karunatilake *et al* (2025)[19]	Clinical study	Vitreous floaters	Limited	High success rates with controlled extent; minimal complications in floaters
Gu *et al* (2025)[3]	Prospective	RD	Extensive	More extensive vitrectomy improved outcomes in high-risk cases
Patel *et al* (2024)[17]	Review	Diabetic retinopathy	Extensive	Complex tractional cases may require extensive dissection and peripheral shaving
Boneva *et al* (2023)[22]	Retrospective	Myodesopsia	Limited	Effective, but warns of recurrent floaters due to progression of PVD
Wibbelsman *et al* (2022)[15]	Case series	RD	Limited	Limited vitrectomy was effective in selected RD cases
Nishitsuka *et al* (2021)[20]	Comparative	RD	Mixed	No consistent advantage of aggressive peripheral vitreous shaving
Forlini *et al* (2020)[11]	Comparative	ERM	Limited	Limited vitrectomy showed comparable anatomical and functional outcomes to more extensive vitrectomy approaches
Ozkaya *et al* (2019)[12]	Retrospective	ERM, macular hole	Limited	Limited vitrectomy achieved favorable outcomes without need for extensive peripheral removal
Tarakcioglu *et al* (2019)[13]	Retrospective	Macular hole	Limited	Limited vitrectomy provided effective anatomical closure rates
Özkan *et al* (2019)[14]	Retrospective	Macular hole	Limited	Limited vitrectomy appears to be effective and safe, with a low risk of peripheral retinal breaks and RD
Sebag *et al* (2018)[16]	Prospective	Vitreous floaters	Limited	Limited vitrectomy demonstrated good long-term safety and efficacy
Marie-Louise *et al* (2017)[18]	Retrospective	ERM	Limited	Low RD rates in ERM surgery without the need for aggressive peripheral shaving

ERM: Epiretinal membrane; RD: Retinal detachment; PVD: Posterior vitreous detachment.

Given the elective nature of this indication, minimizing surgical risk is critical and extensive vitrectomy is rarely justified.

Synthesis of Evidence Across indications, the optimal extent of vitrectomy is context-dependent rather than universal. Limited vitrectomy appears sufficient in macular surgery and selected retinal detachment cases, while extensive vitrectomy remains necessary in complex tractional diseases[3,11-15].

Taken together, the available data do not indicate a consistent advantage of routine extensive vitrectomy across all clinical scenarios[11,15,20]. Instead, it supports an individualized, pathology-driven approach to vitreous removal.

The comparative characteristics and outcomes of the studies regarding vitrectomy extent are summarized in Table 1. Overall, the majority of studies support a limited or individualized approach in selected cases, whereas extensive vitrectomy appears to be more beneficial in complex tractional pathologies.

Complications Comparison The complication profile of pars plana vitrectomy is closely related to the extent of surgical manipulation. While extensive vitrectomy aims to eliminate tractional substrates, increasing surgical extent may introduce additional iatrogenic risk. In contrast, limited vitrectomy reduces intraoperative manipulation but may leave residual vitreous with potential long-term implications. Thus, complications reflect a balance between surgical completeness and tissue preservation.

Iatrogenic retinal breaks Among intraoperative complications, iatrogenic retinal breaks represent one of the most frequently encountered events and are closely linked to peripheral vitreous manipulation[5-8]. Multiple studies indicate that a substantial proportion of these breaks occur during vitreous base shaving, particularly under scleral indentation[5-6,9-10]. Aggressive peripheral dissection increases traction at the vitreoretinal interface in anatomically vulnerable regions, potentially offsetting the theoretical benefits of extensive vitrectomy. In contrast, limited vitrectomy may reduce the incidence of such complications in appropriately selected cases.

Postoperative hypotony and choroidal complications Postoperative hypotony is influenced by multiple factors, including surgical duration, fluidics and intraocular tissue disturbance. More extensive vitrectomy is typically associated with longer operative times and increased intraoperative manipulation, which may contribute to early postoperative hypotony.

Although multifactorial, hypotony-related complications such as choroidal detachment and delayed visual recovery may be more likely in procedures involving extensive peripheral dissection.

Lens damage and cataract progression In phakic eyes, increased surgical extent—particularly during peripheral vitreous shaving—requires closer instrument proximity to the crystalline lens. This may increase the risk of inadvertent lens touch and accelerate cataract progression.

While cataract formation is common after vitrectomy regardless of technique, prolonged surgery and increased intraocular turbulence associated with extensive vitrectomy may further contribute to this process.

Hemorrhage and inflammatory response In conditions such as diabetic retinopathy, extensive vitrectomy in ischemic and neovascularized tissues may increase the risk of intraoperative bleeding[17]. Similarly, greater surgical manipulation may provoke a more pronounced inflammatory response, potentially affecting postoperative recovery.

A more targeted approach may reduce these risks, although insufficient removal of pathological tissue may compromise disease control.

Residual vitreous and recurrence A key limitation of limited vitrectomy is the presence of residual vitreous, which may serve as a substrate for recurrent traction, membrane formation, or persistent symptoms[22-24]. This is particularly relevant in proliferative vitreoretinopathy and vitreous floaters.

Thus, while limited vitrectomy reduces iatrogenic complications, it may increase the risk of recurrence in selected pathologies, highlighting a fundamental trade-off between safety and completeness.

A Risk-Benefit Balance Overall, complication patterns differ qualitatively rather than quantitatively between approaches. Extensive vitrectomy is associated with increased intraoperative risks related to surgical manipulation, whereas limited vitrectomy carries a potential risk of residual pathology and recurrence.

Current evidence does not support a uniform reduction in complications with more extensive vitreous removal[5,8,20]. Instead, it favors a balanced, indication-specific approach in which surgical extent is tailored to disease characteristics.

Controversies Despite decades of experience with pars plana vitrectomy, the optimal extent of vitreous removal remains a subject of ongoing debate. Several key controversies highlight the lack of consensus and the variability in current surgical practice.

Is peripheral vitreous base shaving always necessary The necessity of routine 360-degree peripheral vitreous shaving remains one of the most debated aspects of vitrectomy. While traditionally performed to reduce residual traction and prevent postoperative complications, growing evidence indicates that a substantial proportion of iatrogenic retinal breaks occur during this maneuver[5].

This raises a critical question: whether routine shaving provides net benefit or introduces avoidable risk. In the absence of high-quality comparative data, a selective approach based on intraoperative findings may be more justified than universal application.

Does more extensive vitrectomy reduce recurrence The assumption that extensive vitrectomy improves anatomical success, particularly in rhegmatogenous retinal detachment, remains largely theoretical[25]. Although the rationale is mechanistically plausible, clinical studies have not consistently demonstrated superior outcomes with more aggressive approaches[15,20].

This discrepancy suggests that surgical extent alone may not be the primary determinant of success and that other factors—such as pathology characteristics and surgical precision—may play a more critical role.

Role of PVD Induction Routine induction of PVD is widely practiced but remains controversial. While it facilitates traction relief, it is also associated with retinal tears and hemorrhage[5,17].

In selected cases, particularly in macular surgery or eyes with partial PVD, a limited approach may be sufficient. However, the lack of standardized criteria for PVD induction continues to contribute to variability in surgical practice.

Surgeon-Dependent Variability The extent of vitrectomy is often determined more by individual surgeon preference and training than by standardized evidence-based guidelines. Variability in technique—including the degree of peripheral shaving and PVD induction—remains substantial across surgeons and institutions.

This heterogeneity limits comparability between studies and raises concerns that current practices may reflect tradition rather than optimized, evidence-driven decision-making.

Lack of Standardized Definitions A fundamental limitation in this field is the absence of universally accepted definitions for “extensive” and “limited” vitrectomy. Similar surgical techniques may be described differently across studies, while identical terminology may refer to heterogeneous procedures.

This lack of standardization complicates evidence synthesis and contributes to conflicting conclusions in the literature.

Summary of Unresolved Questions Collectively, these controversies highlight a gap between theoretical rationale, surgical tradition and clinical evidence. Key unresolved questions include the necessity of routine peripheral shaving, the true impact of surgical extent on outcomes and the role of PVD induction. Addressing these issues will require standardized definitions and well-designed comparative studies. Until then, surgical decision-making will likely remain individualized and experience-driven.

DISCUSSION

This review highlights a discrepancy between traditional surgical assumptions and available evidence. Although extensive vitrectomy has long been considered standard, available evidence does not consistently indicate a clear advantage of this approach[11,15,20].

Increased surgical extent appears to introduce additional risk, particularly through peripheral vitreous shaving, a major source of iatrogenic retinal breaks[7-8]. Conversely, limited vitrectomy has shown comparable outcomes in several indications, especially in macular surgery[11-14].

However, limited approaches may not be sufficient in complex tractional diseases, where more extensive dissection remains necessary[3,17]. Therefore, the issue should not be interpreted as a binary choice but rather as a spectrum of surgical strategies in which both insufficient and excessive intervention may be suboptimal.

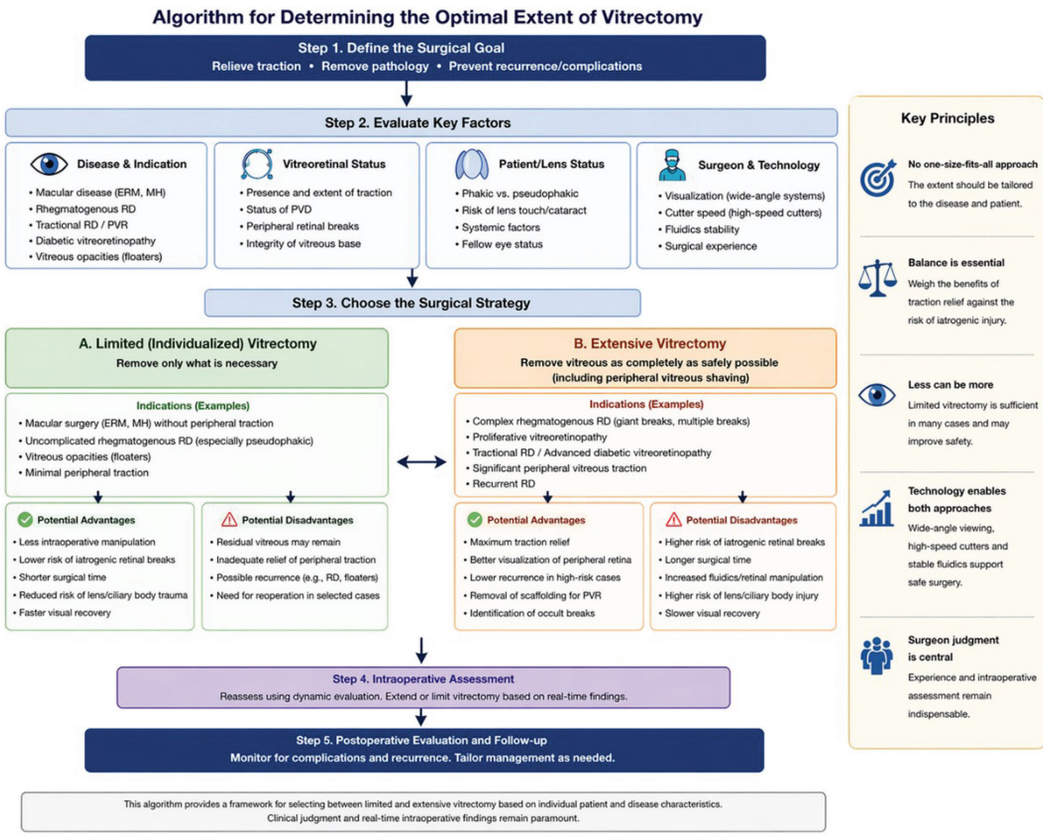

Figure 1 Clinical decision-making algorithm for determining the optimal extent of vitrectomy based on underlying pathology ERM: Epiretinal membrane; MH: Macular hole; RD: Retinal detachment; PVR: Proliferative vitreoretinopathy; PVD: Posterior vitreous detachment.

Technological advances have further reduced the need for aggressive manipulation, supporting a shift toward targeted, pathology-driven surgery[1-2,26].

Overall, the evidence favors a tailored, pathology-driven approach, reflecting a broader transition toward precision and minimally invasive vitreoretinal surgery.

However, it is important to acknowledge that much of the current evidence is derived from heterogeneous study designs, which limits direct comparison between surgical approaches.

Technological advances have played a dual role by enabling both more extensive and more conservative surgical strategies, further emphasizing the importance of individualized decision-making.

Based on the current evidence and surgical principles discussed above, a practical decision-making algorithm based on extensive versus limited vitrectomy strategies is proposed (Figure 1).

The algorithm is structured around two principal surgical strategies: extensive and limited vitrectomy, emphasizing a pathology-driven approach in which the extent of vitreous removal is tailored according to disease characteristics, vitreoretinal traction status and intraoperative findings.

CONCLUSION

Based on the available literature, routine use of extensive vitrectomy across all indications cannot be justified. While extensive vitreous removal may be necessary in complex cases, limited vitrectomy provides comparable outcomes in many scenarios with potentially lower risk.

Modern vitreoretinal surgery should prioritize targeted intervention rather than maximal removal. Instead, determining the extent of vitreous removal should be guided by disease-specific characteristics and intraoperative findings.

Future research should focus on prospective, indication-specific comparisons using standardized definitions of surgical extent, as this remains a critical gap preventing the development of evidence-based guidelines for vitreous removal.

ACKNOWLEDGEMENTS

AI-Generated Content Disclosure: Generative artificial intelligence tools were used solely for English language editing. The author critically reviewed and approved the final manuscript and takes full responsibility for its content.

Conflicts of Interest: Ceylan FA, None.

REFERENCES

1 Ohara H, Torikai T, Takeuchi J, *et al*. Comparison of 27-gauge to 25-gauge vitrectomy in patients with tractional retinal detachment associated with proliferative diabetic retinopathy. *J Clin Med* 2025;14(7):2533.

2 Ribeiro L, Oliveira J, Kuroiwa D, *et al*. Advances in vitreoretinal surgery. *J Clin Med* 2022;11(21):6428.

3 Gu RP, Zhao JJ, Shi JM, *et al*. Clinical outcomes of complex rhegmatogenous retinal detachment treated with a 25-G, 10,000-cpm beveled-tip cutter probe. *Quant Imaging Med Surg* 2025;15(2):1613-1620.

4 Sebag J. Vitreous and vision degrading Myodesopsia. *Prog Retin Eye Res* 2020;79:100847.

5 Mura M, Barca F, Dell'Omo R, *et al*. Iatrogenic retinal breaks in ultrahigh-speed 25-gauge vitrectomy: a prospective study of elective cases. *Br J Ophthalmol* 2016;100(10):1383-1387.

6 Zhang Z, Wang W, Xu D, *et al.* Incidence and risk factors of iatrogenic retinal breaks in modern microincision vitrectomy surgery. *J Ophthalmol* 2020;2020:5085180.

7 Jairath NK, Paulus YM, Yim A, *et al*. Intra- and post-operative risk of retinal breaks during vitrectomy for macular hole and vitreomacular traction. *PLoS One* 2022;17(8):e0272333.

8 Chen GH, Tzekov R, Jiang FZ, *et al*. Iatrogenic retinal breaks and postoperative retinal detachments in microincision vitrectomy surgery compared with conventional 20-gauge vitrectomy: a meta-analysis. *Eye (Lond)* 2019;33(5):785-795.

9 Rizzo S, Polizzi S, Barca F, *et al*. Comparative study of 27-gauge versus 25-gauge vitrectomy for the treatment of primary rhegmatogenous retinal detachment. *J Ophthalmol* 2017;2017:6384985.

10 Rizzo S, Barca F, Caporossi T, *et al*. Twenty-seven-gauge vitrectomy for various vitreoretinal diseases. *Retina* 2015;35(6):1273-1278.

11 Forlini M, Date P, D'Eliseo D, *et al*. Limited vitrectomy versus complete vitrectomy for epiretinal membranes: a comparative multicenter trial. *J Ophthalmol* 2020;2020:6871207.

12 Ozkaya A, Erdogan G, Tulu B, *et al*. The outcomes of subtotal vitrectomy in macular surgeries: a single surgeon case series. *Int Ophthalmol* 2019;39(3):589-595.

13 Tarakcioglu HN, Tulu B, Ozkaya A. Subtotal vitrectomy in idiopathic macular hole surgery. *Saudi J Ophthalmol* 2019;33(4):369-373.

14 Özkan B, Karabaş VL, Yılmaz Tuğan B, *et al*. Limited vitrectomy in patients with ıdiopathic macular hole. *Balkan Med J* 2019;36(6):320-323.

15 Wibbelsman TD, Xu D, Levin H, *et al*. Limited vitrectomy for pseudophakic rhegmatogenous retinal detachment. *Retina* 2022;42(12):2411-2413.

16 Sebag J, Yee KMP, Nguyen JH, *et al*. Long-term safety and efficacy of limited vitrectomy for vision degrading vitreopathy resulting from vitreous floaters. *Ophthalmol Retina* 2018;2(9):881-887.

17 Patel NC, Hsieh YT, Yang CM, *et al*. Vitrectomy for diabetic retinopathy: a review of indications, techniques, outcomes, and complications. *Taiwan J Ophthalmol* 2024;14(4):519-530.

18 Marie-Louise J, Philippakis E, Darugar A, *et al*. Occurrence rate of retinal detachment after small gauge vitrectomy for idiopathic epiretinal membrane. *Eye* (*Lond*) 2017;31(9):1259-1265.

19 Karunatilake M, Fijardo B, Michael E, *et al*. Outcomes of pars plana vitrectomy for visually significant floaters in Northern Alberta. *Int J Retin Vitr* 2025;11:54.

20 Nishitsuka K, Nakamura M, Nishi K, *et al*. Surgical outcomes of rhegmatogenous retinal detachment with different peripheral vitreous-shaving procedures. *Clin Ophthalmol* 2021;15:2197-2202.

21 Fung AT, Galvin J, Tran T. Epiretinal membrane: a review. *Clin Exp Ophthalmol* 2021;49(3):289-308.

22 Boneva SK, Nguyen JH, Gui W, *et al*. Recurrent floaters after limited vitrectomy for vision degrading myodesopsia. *Retina* 2023;43(7):1114-1121.

23 Boneva SK, Nguyen JH, Mamou J, *et al*. Clinical management of vision degrading Myodesopsia from vitreous floaters. *Ophthalmol Retina* 2025;9(12):1149-1158.

24 Nishitsuka K, Nishi K, Namba H, *et al*. Quantification of the peripheral vitreous after vitreous shaving using intraoperative optical coherence tomography. *BMJ Open Ophthalmol* 2021;6(1):e000605.

25 Rajsirisongsri P, Patikulsila D, Phinyo P, *et al*. Primary rhegmatogenous retinal detachment repair by pars plana vitrectomy with and without scleral buckling: a propensity score analysis. *Clin Ophthalmol* 2024;18:3913-3923.

26 Hannan A, Shaheen F, Saad M. Outcomes of 23-gauge pars plana vitrectomy in various vitreoretinal diseases. *Cureus* 2024;16(11):e72991.