

# SPOTLIGHT ON TASS



Clinical insights amid a recent IOL recall.

BY NICK MAMALIS, MD

**T**oxic anterior segment syndrome (TASS) has been a known clinical entity for decades, yet outbreaks remain formidable. Recent reports of TASS associated with the family of enVista IOLs from Bausch + Lomb prompted a product recall.<sup>1</sup> This article offers both a clinical framework and a situational overview.

## THE RECALL

February brought the first reports of TASS linked to enVista IOLs. Initially limited to a few isolated cases, concern escalated in March, when a significant number were reported to the company.

In response, Bausch + Lomb announced a voluntary recall of IOLs on the enVista platform, including the enVista Aspire and enVista Envy as well as certain enVista monofocal lenses in the United States. All patients with TASS linked to these lenses responded well to treatment, and none of the lenses had to be removed. According to Bausch + Lomb, these reports represent only a small percentage of the total number of implanted lenses, and there have been no permanent complications to date.

## UNDERSTANDING TASS

TASS by definition is a sterile, acute inflammation of the anterior segment that typically manifests within 12 to 48 hours after anterior segment surgery, most commonly cataract extraction. Distinguishing TASS from infectious endophthalmitis is paramount because the management approaches differ significantly. Endophthalmitis often arises 7 to 10 days after surgery and is treated with intravitreal antibiotics. TASS requires aggressive antiinflammatory therapy, not antimicrobial treatment.

The following are classic signs of TASS:

- Diffuse corneal edema extending from limbus to limbus rather than focal edema from surgical trauma or complicated cataract surgery;

- A marked anterior chamber reaction with cell, flare, fibrin formation, and often hypopyon; and
- Damage to intraocular structures, particularly the iris and trabecular meshwork, which may lead to a fixed, dilated pupil or secondary glaucoma.

## LESSONS FROM RECENT YEARS

In the past decade, our understanding of TASS has deepened. The most common sources continue to be instrument cleaning and sterilization protocols. Inconsistent practices, especially regarding enzymatic detergents or retained residue, can lead to outbreaks. That said, when clusters of TASS cases appear across multiple practices, attention must shift toward exogenous agents introduced during surgery—whether they be medications, IOLs, or OVDs.

## ROOT CAUSE ANALYSIS

Any TASS outbreak associated with a product necessitates a root cause analysis—a meticulous process that evaluates every link in the supply chain:

- Manufacturing processes;
- Lens packaging materials;
- Solutions used to store or hydrate lenses;
- Sterilization methods; and
- Potential patient-specific variables.

At the time of this writing, Bausch + Lomb is conducting a thorough, multifaceted investigation. Although a definitive cause has yet to be identified, the company's swift response—issuing the recall before gathering all the data—demonstrates a commendable commitment to patient safety.

## TREATMENT PROTOCOLS AND FOLLOW-UP CARE

The success of TASS treatment hinges on rapid and intensive antiinflammatory therapy. Once TASS is suspected, intravitreal antibiotics and vitreous taps are

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not necessary. Instead, treatment should include the following:

- A high-frequency regimen of topical corticosteroids;
- Topical NSAIDs to mitigate inflammation and reduce the risk of complications such as cystoid macular edema; and
- Daily observation of the patient until improvement is evident. Particular attention should be paid to IOP fluctuation because pressure may decrease initially but then rise significantly if the trabecular meshwork sustains damage.

In severe TASS, surgical intervention may be required to address corneal edema. Refractory glaucoma may necessitate tube shunt surgery. The development of significant iris atrophy may leave patients with permanently dilated pupils.

## TAKE ACTION

One of the most critical aspects of TASS mitigation is timely reporting. If you encounter TASS, report it. Contact the manufacturer directly and consider submitting a case to the ASCRS TASS Task Force online at [ascrs.org](http://ascrs.org). These reports are vital for identifying emerging patterns and halting outbreaks in their early stages.

In our recent 10-year analysis of TASS cases submitted to the task force, my colleagues and I noted a downward trend overall.<sup>2</sup> ■

1. Eyewire News. Bausch + Lomb announces voluntary recall of enVista IOLs. March 27, 2025. Accessed April 1, 2025. <https://eyewire.news/news/bausch-lomb-announces-voluntary-recall-of-envista-iols?c4src=article:infinite-scroll>  
2. Yao M, Mudalegundi S, Eid K, et al. Toxic anterior segment syndrome: a 2012-2022 update on the most common causes. *J Cataract Refract Surg*. Published online January 21, 2025. doi:10.1097/j.jcrs.0000000000001610

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