Evaluation of Available Online Information Regarding Treatment for Vitreous Floaters

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Financial Disclosures

• No relevant financial disclosures
• **Question:** Is there a difference in the type of online information provided about vitreous floaters treatment based on the source of the information?

• **Findings:** In this cross-sectional study, 456 websites discussing vitreous floater treatment were analyzed. Websites varied greatly in quality, information, and readability, and significant factors associated with these variations included physician training and type of institution (academic vs private). Less than a quarter of websites discussed possible complications of treatment.

• **Meaning:** Online information on vitreous floater treatment is insufficient, and treatment recommendations varied significantly depending on physician training, suggesting a need for more standardization to aid patients in making appropriate medical decisions.
Background

Online Health Information
- Increasingly popular resource for patients
- No standard for quality and accuracy

Vitreous Floaters
- Generally benign
- Majority of people experience floaters
- No objective measure of severity
- Decision for treatment largely patient-driven
Purpose

To assess the quality, content, and readability of information available online on vitreous floater information.
Methods

- Google search of “vitreous floater treatment” followed by [State]
- First 20 websites were included
- Grading rubric with 22 criteria
  - Public or private institutions
  - Google rank
  - Treatments advertised
  - Did ophthalmologist complete surgical retina fellowship?
  - Website Readability (Flesch Reading Ease score)
Standardized Checklist Used to Evaluate Websites

- URL
- Website rank in search engine
- Name of company/institution
- Number of locations
- Academic or private institution?
- Does website explain what vitreous floaters are?
- Depth of Explanation (range 1-3)
- Flesch reading ease score
- Does website mention that floaters are benign?
- Does website mention laser as management for floaters?
- Does website mention vitrectomy as management for floaters?
- Does website mention observation as management for floaters?

What is the main procedure advertised?
- Does website mention patient results/vision after procedure?
- Does website mention main advertised procedure complications/risks in general?
- Does website mention complications from procedures performed on their patients?
- What are the complications?
- Does website mention price of procedures?
- Does website mention insurance coverage?
- Is there information about physicians in this practice?
- Is the training of the ophthalmologist/s stated?
- Did ophthalmologist/s listed complete a surgical retina fellowship?
Results

- 456 websites included
- 89% were private institutions and 5.3% were academic
- The average readability score correlated to a 10th-12th grade level
- 62.1% of websites discussed vitreous floater treatment and 21.8% discussed potential side effects
- Google rank was correlated with depth of explanation ($r = 0.114$, $p = 0.016$)
- The main treatment recommended was observation (55.8%), followed by laser treatment (27.6%), and vitrectomy (5.3%)
- Centers with vitreoretinal (VR) surgeons were 16.43 times more likely to recommend vitrectomy than those without VR surgeons ($p<0.001$)
Websites Discussing Vitreous Floater Treatment by State

Number of Websites by State

- 0
- 1-4
- 5-9
- 10-14
- 15-19
- >20
Recommended Treatment for Vitreous Floaters

No Tx discussed | Observation | Laser | Vitrectomy | Not one main treatment preferred
---|---|---|---|---
No Surgical Retina | Surgical Retina | Training Unspecified
Conclusion

– Nearly two-thirds of websites discussed treatment
– Less than a quarter of websites mentioned complications
– Treatment recommendations varied significantly depending on the presence of a vitreoretinal surgeon

*Online information is greatly variable by the source and may not provide patients with adequate information to make well-informed medical decisions. This suggests a need for greater standardization of patient-accessible digital resources.*
Acknowledgements

Dr. Sasha Hubschman
Dr. Julia Hudson
Dr. Ajay E Kuriyan
Dr. Jayanth Sridhar

Thank You!