



Case Report: Terson Syndrome Atypical Presentation and the Need for Fundoscopic Evaluation

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Background

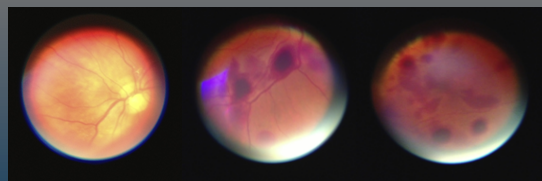
- Terson Syndrome (TS): intraocular hemorrhage in presence of subarachnoid hemorrhage (SAH)
- Mean Hunt and Hess grades > 3
- GCS scores < 8
- Shown to herald higher mortality rates

Objectives

- Report the case of a patient with an aneurysmal SAH, found to have TS, who presented with a low-grade Hunt and Hess score of 2 and a GCS of 15
- Propose the use of bedside fundoscopic evaluation of TS

Case Report

- **Age/Sex:** 54Y F
- **HPI:** Presented with nausea, vomiting, nuchal rigidity and left eye droop. CT angiography revealed basilar tip aneurysm with diffuse SAH. Successful primary coiling with no complications. HD #2 patient c/o blue floaters in vision
- **Clinical Exam:** Extensive bilateral retinal and pre-retinal hemorrhages on fundoscopic examination
- **Hospital Course:** Hospitalization was complicated by intermittent elevated velocities on TCD with associated GCS scores of 13, requiring stent coiling and intra-arterial vasodilatation
- The patient continued perceiving floaters but otherwise remained stable during her 2 week stay
- **Discharge:** Home with plans to f/u with ophthalmology



Normal

OD

OS

Clinical Examination

- Intraocular images obtained using a WelchAllyn PanOptic ophthalmoscope with a Welch Allyn iExaminer attached to iPhone 4s
- Bedside evaluation and image capture without pupillary dilatation. Best corrected visual acuity was 20/60 O.U.



Discussion

- Overall incidence of TS approximates 10-20% of patients who sustain aneurysmal SAH, however, TS is likely under-reported
- Earlier detection may improve prognostication and decrease the incidence of chronic vision loss
- Fundoscopic evaluation remains the standard method for detecting Terson hemorrhage, however often in a delayed setting
- Delay likely due to need for pupillary dilation and ophthalmology evaluation
- Serial fundoscopic examinations should be initiated early, as initial presentation of Terson hemorrhages has been documented as early as 1 hour after inciting event

Conclusion

- TS is commonly found in aneurysmal SAH patients with high grade Hunt and Hess, and low GCS scores
- However, cases of TS have been found in patients with low grade Hunt and Hess and higher GCS scores
- Because TS has been linked with worsened mortality rates and in some cases residual ocular defects, all patients with aneurysmal SAH should be evaluated for intraocular hemorrhage

References

- References upon request