A 23-Year-Old Male with a Punch to the Face

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Introduction:

A 23-year-old male presented to our office for an evaluation of a "vitreous opacity" in the right eye. He denied any significant ocular history other than myopia in both eyes for which he wears spectacles. Although, he did admit to being involved in an altercation three years prior, during which he sustained a closed fist injury to the right side of the face and right eye. Following injury, he denied need for any surgical or medical care and did not follow up with any healthcare provider following this injury.

His presenting visual acuity was 20/20 with correction in both eyes. His intraocular pressure was within normal limits. Anterior segment examination was unremarkable. Examination of the posterior segment in the right eye revealed a superonasal, band-like, elevation of the vitreous body near the ora serrata (Figure 1). Pigmented cells were appreciated in the vitreous, however no retinal breaks or tears were visualized with scleral depression and 3-mirror examination. The remainder of the examination was unremarkable. Careful examination of the fellow eye revealed no abnormalities. No acute treatment was required other than observation and a careful discussion of the signs and symptoms of retinal detachment.

Discussion:

The vitreous body itself is a fibrillar meshwork that fills the vitreous cavity of the eye. The strongest points of adherence are at the arcades, macula, optic disc, and the vitreous base. Naturally the vitreous will separate from the retina as a patient ages with a resultant posterior vitreous detachment. However, in a traumatic situation the separation of the vitreous can be induced prematurely. A vitreous base avulsion, often described as a "bucket handle" vitreous base separation owing to its appearance (Figure 2) is often seen following blunt force trauma. Boxers,

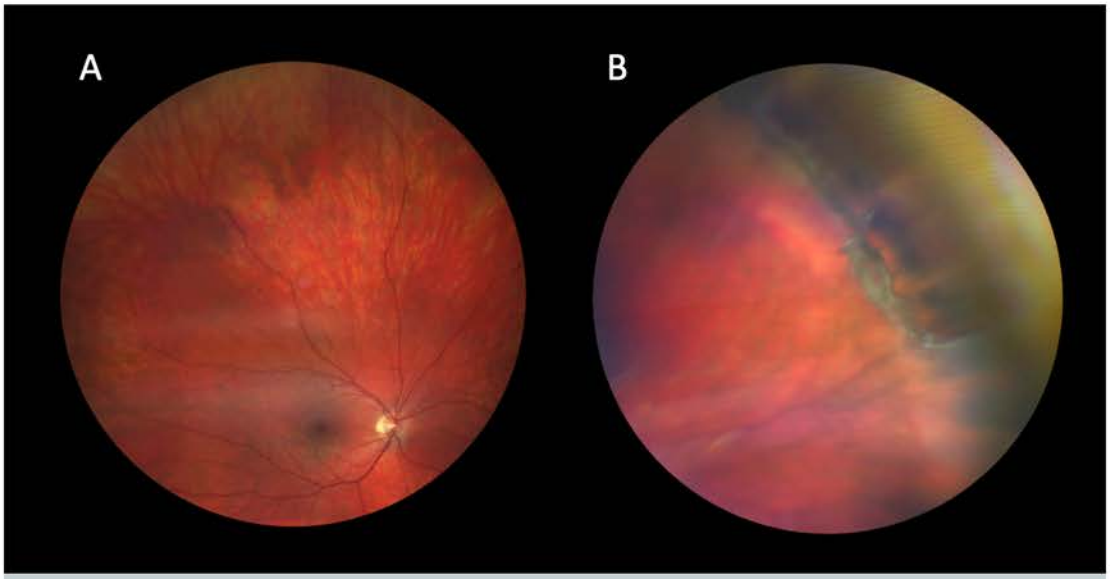

Figure 1: Two color fundus photos demonstrating a myopic fundus (A) and a vitreous base avulsion (B).

for example, are at increased risk for this type of pathology given their exposure to numerous episodes of blunt force facial trauma. Due to the strong adherence between the vitreous base and the peripheral anterior retina, retinal tears and breaks can often be seen in association with an avulsion of the vitreous base. The area of avulsion as well as the remainder of the peripheral retina must be carefully examined with scleral depression to discover any subtle retinal tears or breaks. In patients that have a difficult time tolerating scleral depression, a 3-mirror lens can be utilized to visualize the ora serrata and investigate potential peripheral pathology. The patient should also be counseled on the signs and symptoms of a retinal detachment.

Figure 2: A color fundus photo demonstrating a "bucket-handle" vitreous base avulsion.

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Image Links:

Boxer image - https://www.quora.com/Would-you-take-a-punch-from-Mike-Tyson-for-100-grand

Bucket-handle - https://www.amazon.com/Wishing-Wood-Vintage-Primitive-Handmade/dp/B07BRJW8NH/ref=asc_df_B07BRJW8NH/?tag=hyprod20&linkCode=df0&hvadid=309807711822&hvpos=&hvnetw=g&hvrand=4303436969227219036 hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9060420&hvtargid=pla-571294135338&psc=1

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