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The Prevalence of Retinal Detachment and Associated Comorbidities Over a 5-year Period

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Introduction

Retinal detachment (RD) is a condition in which the neurosensory portion of the retina separates from the pigmented retinal epithelium [1]. RD has a modest incidence with a lifetime risk of 3% by age 85, and is classified as a true ophthalmic emergency [2]. Left untreated, RD frequently leads to blindness in the affected eye [3]. This is unfortunate, and sometimes inevitable, as patients often present to their general practitioner after their central vision has been compromised.

Studies have demonstrated that RD is associated with events such as myopia, cataract surgery and trauma. However, not many other associations have been studied [1].

The purpose of this study was to describe the demographics, comorbidities and socioeconomic factors associated with retinal detachment. These results will guide further research comparing identified factors to patients without retinal detachment.

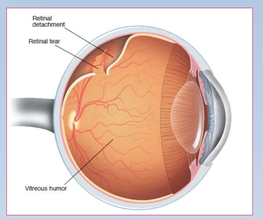
Hypothesis

Retinal Detachment is associated with common chronic comorbidities.

Methods

We used the Healthcare Cost and Utilization Project, National Inpatient Sample database, to identify patients with a discharge diagnosis of RD (ICD-9/10 codes, 36.1, H33) between 2012-2016.

The Elixhauser Comorbidity Index was used to identify comorbid conditions and the comorbidity burden. Demographic, geographical, socioeconomic factors and incidence of blindness were evaluated. Continuous data are reported as mean (SD), descriptive statistics are presented as frequency and percentage.



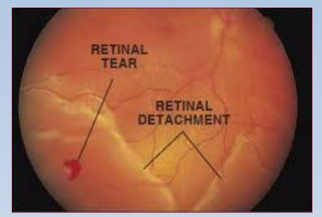


Figure 1

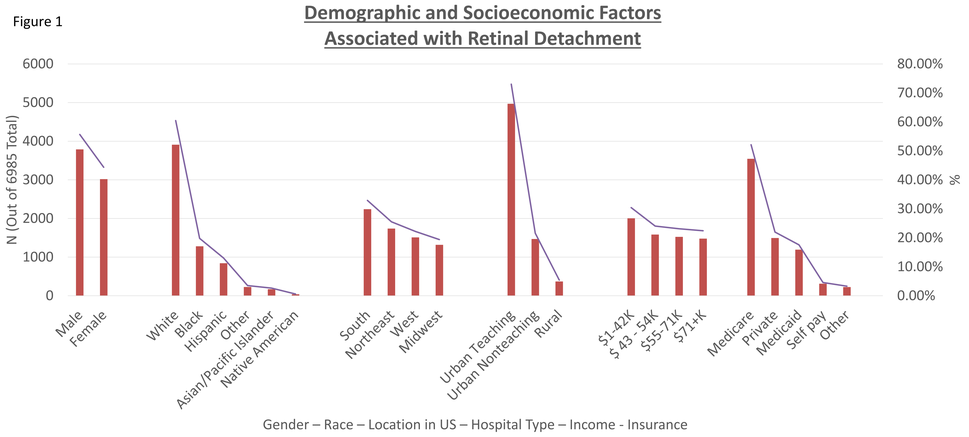
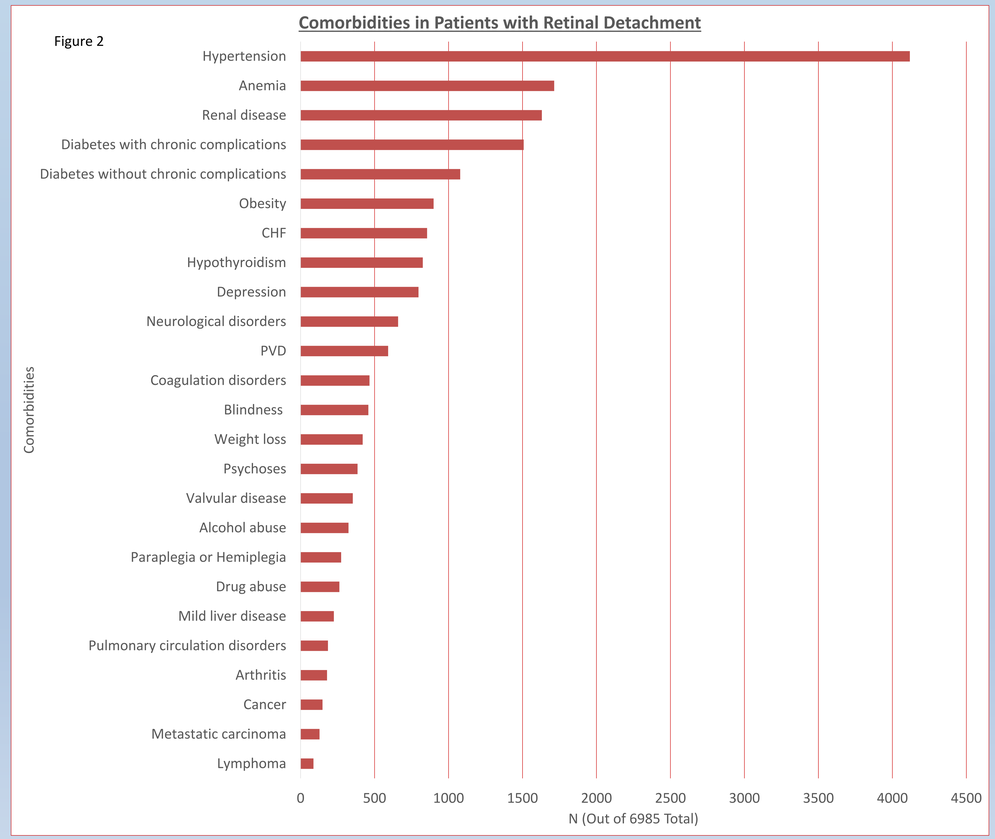


Figure 2



Results

Total patients with retinal detachment: 6985

Most prevalent **demographic** and **socioeconomic** findings: (Figure 1)

Mean age: 59 (SD, 19.69)

Sex: Males

Race: White

Hospital type: Urban teaching hospitals

Region of the US: Southern United States

Income: <$42,000

Insurance: Medicare

Most prevalent **comorbidities**: (Figure 2)

Hypertension

Diabetes mellitus

Anemia

Renal disease

Obesity

Elixhauser Comorbidity Score: 2.94 (SD, 2.11)

Conclusion

In this study, the incidence of retinal detachment is low.

Blindness occurred in less than 7% of patients.

RD patients present most often to urban teaching hospitals with common chronic health conditions.

Clinicians should understand the influence that comorbid conditions have in emergent treatment of RD to avoid adverse outcomes.

References

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