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Association between Age Related Macular Degeneration and Anxiety Disorder

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ABSTRACT

Anxiety disorders has been termed a social epidemic especially by people with disabilities, one of them is visual impairment because age related macular degeneration. The present study compared the qualitative dimensions of loneliness of the blind and visually impaired with the general population not on the frequency or intensity of their loneliness. This study compared the qualitative dimensions of loneliness between blind and visually impaired persons and the general population, rather than the frequency or intensity of their loneliness., no studies have specifically evaluated anxiety disorder in young and middle-aged people with visual impairment (VI). High prevalence of loneliness among the visually impaired elderly persons, that reports a prevalence of 54% in the visually impaired elderly aged ≥ 55 years. In addition, the risk of loneliness was higher for those who were aged 36 to 50 years, exposed to bullying or physical or sexual abuse, had blindness, other impairments, or were unemployed. The mean score for loneliness was 4.83 (SD 1.82), 4.88 for women and 4.78 for men ($p = 0.46$). The majority of participants reported missing somebody to be with sometimes (39.0%) or often (21.1%). The prevalence of anxiety among older adults with AMD is also higher than among both general populations of older adults and those with other common age-related medical conditions. The aim of this study to estimate the prevalence of loneliness and associated factors in adults with age related macular degeneration.

1. Introduction

AMD is a complex and multifactorial disease with factors such as age, lifestyle, ethnicity, and genetics all having an important role in modifying the onset, development and severity of sad disease. The natural history of this disease starts off as a non-exudative form with pigmentation and deposition of large subretinal deposits widely known as drusen in macula. AMD is a disorder characterized by abnormalities of structure and function of neurosensory retina and retinal pigment epithelium (RPE) which plays an integral role on the physiology of vision. By 2010, previous studies have observed an increasing incidence of AMD in United States resulting in an approximately 2.07 million people owning this disease from the previous 1.75 million in year 2000. Looking at it from an ethnicities stand point, AMD has been observed to be more prevalent

in whites compared to individuals of other ethnicities. A study showed that out of 2.07 million reported cases in year 2010, 1.85 million was white. The same study also projected that by 2040, there will be 288 million people suffering from AMD.

A small subset of these non-exudative form patients, around 10-15%, the disease will advance into an exudative form which is caused by penetration of abnormal blood vessels originating from choriocapillaries through Bruch's membrane. This phenomenon is known as choroidal neovascularization (CNV). This newly form blood vessels differ from the normal blood vessel in terms of its structural integrity. This new blood vessels tend to easily break and causing a leak into the and under the retina. This buildup triggers a disruption of normal retinal function and contributes to vision

loss, sudden and gradual, in 90% of AMD patients. This pathogenesis relies heavily on what is known as VEGF-A. VEGF-A has been identified as a major regulator of CNV development in many studies. Due to this fact, VEGF-A has been repeatedly become the target of therapies and most therapies right now work by stopping the activity of VEGF-A mostly by separating and neutralizing it. This method is mainly achieved by repeated (monthly) intravitreal injection of VEGF-A agonists

As mentioned before, age is one of the major contributing factor to AMD. It was hypothesized and believed that increasing age is associated with increased acellular deposit in a space between RPE and membrane of Bruch. While this phenomenon is continuing as an individual grows old, the same thing could not be said to the repair mechanism of the body. Increasing age means declining repair function and this imbalance is thought to be the trigger of the formation of drusen. This phenomenon is analogous with atherosclerosis which is also thought to be related with AMD. Obstruction formed by atherosclerotic plaque disrupt the flow of blood in choroid and its venous drainage resulting in an increased flow resistance and increasing the fat in membrane of Bruch. Studies have confirmed this theory in which some have shown that neovascular AMD is associated strongly with diastolic blood pressure >95 mmHg.

Depression is one of the leading contributors to the global disease burden, it is often accompanied by anxiety. Accordingly, the prevalence of depression and anxiety in AMD patients has been subject of several studies, however reported results have been inconsistent. The author wants to know deeply about Anxiety Associated by AMD because lack of information about this disease associated with AMD and many Physician are less of awareness about anxiety.

Some studies have showed the poor visual acuity related to the presence of AMD was associated with anxiety and depression. AMD and other degeneration problem of the eye contribute major psychologic problems, especially emotional distress and social isolation in older people. This psychologic problems

also have been underestimated for the negative effect of the AMD on patients' quality of life. Until this problem is treated, it may be best to screen all patients with AMD for depression, regardless of their acuity, disease stage, or anticipated treatment, especially because patients who are disappointed in their treatment outcomes may be at increased risk on anxiety.

2. Discussion

The study illustrate that visually impaired adults of middle age are at particular risk of developing depressive disorders in 60 years old. When the treatment outcomes fall below expectations, rates of depression are high even among those AMD patients who received VEGF treatment.

Dawson et. al observed Four case-control studies examined anxiety in neovascular AMD, all of which recruited their participants from eye clinics. Three reported no difference between those with AMD and those without. One [19] reported a prevalence which was significantly ($p < 0.05$) higher than the prevalence in a control population recruited from GP clinics. A cross-sectional study found a prevalence estimate of 30.1% for anxiety. Of those that looked at the relationship between neovascular AMD severity and anxiety symptoms none found a relationship.

The potential development of depression and anxiety mechanism among patients with vision loss have been suggested. First, a strong relationship comes between the impairment of functional capacity and depression symptoms. Frustration and distress in diagnosed adjustment are the primary responses to the of functioning and social valued activities. It can be developed into depression symptom. In older people, the lack of motivation associated with these depressive symptoms caused a less function with social activities, which, in turn further exacerbates the symptoms, and may exacerbate subthreshold or minor depression to major depressive disorder. The second is the main problem solving skill deficits. Most AMD patients are 60 years and older, and have developed a well-tested repertoire of skills to approach common problems in life. Vision loss,

however, is a huge problem for which such skills have not been developed and existing skills may not be sufficient to address this problem.

Ophthalmologists and other eye care professionals are uniquely positioned to identify vision-related deficits and related psychiatric symptoms. Discussing depression, for example, with patients can be awkward, uncomfortable, and time consuming, and few eye care professionals have specific training in this area. Most patients, however, do not feel embarrassed or uncomfortable when discussing anxiety.

3. Conclusion

The current literature examining the prevalence of symptoms of anxiety in people with AMD. The prevalence of anxiety among older adults with AMD is also higher than among both general populations of older adults and those with other common age-related medical conditions. It is important to remember that anxiety often co-exist. The results of several clinical trials testing mental health interventions to treat anxiety among older adults with AMD have shown promising short-term results, especially those incorporating problem solving techniques and behavioral activation.

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