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Age Related Macular Degeneration Associated with Depression

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ABSTRACT

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. AMD is the leading etiology of non-reversible blindness in the older age population especially over 65 years old in developed country. It accounts for roughly 9% of worldwide blindness. Some studies have showed the poor visual acuity related to the presence of AMD was associated with depression. AMD and other degeneration problem of the eye contribute major psychologic problems, especially emotional distress and social isolation in older people. The potential development of depression and anxiety mechanisms among patients with vision loss have been suggested. First, a strong relationship comes between the impairment of functional capacity and depression symptoms. The second is the main problemsolving skill deficits. And the third, the speculation about differences the therapy control strategies of AMD can affect the depression symptoms. Future study should be benefit from clearly specifying the type of AMD, including a control or comparator group to allow for comparison of the prevalence depression between AMD and non-AMD populations, and the use of tools which give a clear cut-off for clinical depression.

1. Introduction

Blindness is a serious problem in ophtalmology, and that aspect is led by Age-related macular degeneration or abbreviated AMD as the leading etiology of non-reversible blindness in the older age population especially over 65 years old in developed country. It accounts for roughly 9% of worldwide blindness. 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.

The exact pathogenesis of ARMD is still difficult to understand. There may be abnormalities between the retinal-choroid interface which result in an excessive degenerative process causing atrophy of the retinal pigment epithelium identified as geographic atrophy that can also progress to neovascularization. This is the reason for a gradual decrease in vision on patients with ARMD. Current evidence suggests genetic susceptibility involving complement pathways and environmental risk factors, including age, sex, and environmental factors such as smoking, alcohol consumption, and BMI. This review explains about the the growing knowledge of pathogenesis and pathophysiology of AMD, its current treatment and possible alternatives based on available evidences.

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.

For this century, ophthalmologists have identified and consider to consult the psychiatric for patients with mental distress in those with vision loss because of the major impact on quality of life, specially about the mental health. Unable to continue working and doing hobbies, and limited mobility may adversely affect social interaction and can be associated with depression. depression is mainly contributed for those whose got the vision problem.

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

2. Discussion

The researches purposed to determine an increasing depression towards AMD. Cross-sectional data analyses were based on large community in Gutenberg Health study found the prevalence of depression was 8% and associated with AMD, for those who had negative affect personality, loneliness and less social support findings indicate that AMD often had worsen effects on patients' quality of life. Another study found the satisfaction about quality of life and AMD. The participants who were depressed had considerably lower life satisfaction compared

with those who were not depressed. This 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 the prevalence between depressive symptom and AMD. The aim of the observation was to assess the prevalence of symptoms of anxiety and depression in people with AMD. The results indicate that depressive symptoms are more common in people with AMD (ranged from 15.7%-44%) than in non-AMD populations. Overall, despite few studies looking into the association, there does appear to be a relationship between increasing AMD severity and higher prevalence of depression. The study revealed seven case-control studies that people with AMD were more likely to experience symptoms of depression compared with those without AMD, but not more likely to experience symptoms of anxiety.

The potential development of depression and anxiety mechanisms 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. In addition, problem solving treatment (PST) treatment can be useful to prevent depression symptoms in older patients with AMD and other vision loss.

Third, some author speculated the different control strategies about the therapies of AMD can affect the depression symptoms. This speculation proposes that it is of evolutionary advantage for individuals to use a variety of strategies to maximize control over their life and environment. These “control strategies” may be classified as primary – aimed at actively changing the external environment – or secondary – adapting one’s attitudes to better match losses in active control (eg, goal adjustment).

A number of issues with another studies comparation may be given to explain the range of different prevalence estimates found. The definition and measure of anxiety or depression used in each study and the type of AMD being investigated varied, making the results difficult to interpret collectively. Some studies compared their results to populations without AMD but did not actually include a control group within their study, which may mean that the comparison group is not representative.

3. Conclusion

Presented studies suggest that the risk factors for AMD are predominantly, lifestyle (smoking and dietary), genetical history of AMD, and soft drusen signs and pigmentation disorders. The identification of prevalence influencing AMD over the past decades has offered new insights to understand the impact of the disease with quality of life, Specially depression problem. Many Studies did not specify the type of AMD being assessed and different definitions depression were used. Future study should be benefit from clearly specifying the type of AMD, including a control or comparator group to allow for comparison of the prevalence depression between AMD and non-AMD populations, and the use of tools which give a clear cut-off for clinical depression.

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