

COMMENT



Frailty and eye diseases: a review of the literature

Yoshiyasu Takefuji  ¹✉

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Eye; <https://doi.org/10.1038/s41433-023-02770-y>

A literature review was conducted on the relationship between eye diseases and frailty. The findings indicate that routine eye examinations could serve as a preventative measure against ocular diseases linked to frailty.

Halawa et al. examined the relationship between the frailty index and eye care utilization among 76,260 Medicare beneficiaries diagnosed with Glaucoma [1]. The average age of these beneficiaries was 78.9 years. Their study found that 79.5% of the beneficiaries were categorized as nonfrail/prefrail, 17.1% were mildly frail, and 3.4% were moderate-to-severely frail. Their study revealed that compared to nonfrail/prefrail beneficiaries, those who were moderate-to-severely frail had higher rates of inpatient/ED encounters (with an Incidence Rate Ratio (IRR) of 5.03 and a 95% Confidence Interval (CI) ranging from 2.36 to 10.71). They also had higher rates of nursing facility/home-visit encounters (with an IRR of 34.89 and a 95% CI ranging from 14.82 to 82.13).

Shang et al. studied 5321 participants aged 60–95 years on the association between various vision-related conditions and the incidence of frailty in older adults [2]. They found that the odds of becoming frail were 3.41 times higher for people with glaucoma, 1.59 times higher for people with distance vision impairment, 1.62 times higher for people with near vision impairment, and 2.11 times higher for people with vision problems. These findings suggested that vision problems, vision impairment, and glaucoma are significant predictors of frailty in older adults.

Ghanbarnia et al. investigated association between age-related eye diseases and cognitive frailty in 1136 female adults aged 60 years and older [3]. They found that individuals with cataracts were more likely to exhibit cognitive frailty, with an Odds Ratio (OR) of 1.66 and a *p*-value of 0.043, indicating a statistically significant association. Furthermore, cataracts were significantly associated with cognitive impairment, as evidenced by an OR of 1.50 and a *p*-value of 0.022.

Cao et al. evaluated the associations between frailty, a simple health indicator, and risks of multiple adverse outcomes including eye diseases among 38,950 adults aged 40–64 years who had prediabetes [4]. Their study identified that 49.1% (equivalent to 19122 individuals) of the adults with prediabetes were prefrail, and 5.9% (equivalent to 2289 individuals) were frail. The results showed a significant association between frailty and the risk of eye diseases, with a Hazard Ratio (HR) of 1.31 and a 95% Confidence Interval (CI) of 1.14–1.51.

Hou et al. examined a group of 3013 participants with the average age of 76 years [5]. The majority of the participants were

female, accounting for 59% of the total. Additionally, 74% of the participants identified as non-Hispanic white. They found that there was a significant association between frailty and visual impairment both at the same time (concurrent: Odds Ratio (OR) = 1.55, 95% Confidence Interval (CI) = 1.17–2.02) and at a later time (lagged: OR = 1.79, CI = 1.25–2.59).

The results can conclude that there is a significant association between frailty and eye diseases and consistent eye screenings could act as a safeguard against eye conditions related to frailty.

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COMPETING INTERESTS

The author declares no competing interests.

ADDITIONAL INFORMATION

Correspondence and requests for materials should be addressed to Yoshiyasu Takefuji.

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¹Faculty of Data Science, Musashino University, 3-3-3 Ariake Koto-ku, Tokyo 135-8181, Japan. ✉email: takefuji@keio.jp

Received: 13 September 2023 Revised: 14 September 2023 Accepted: 21 September 2023

Published online: 28 September 2023