1. **No.**

   FP01912112

2. **Title**

   Detrimetal Effect of Smoking on Visual Function in Retinitis Pigmentosa Patients

3. **Period**

   2018-2020

4. **Summary**

Retinitis pigmentosa is an inherited neurodegenerative disease of the retina. We investigated smoking as a modifiable environmental factor for the progression of this currently untreatable disease. Clinical data, smoking history, macular function, and morphology including visual acuity, visual field sensitivity, ellipsoid zone width, and central retinal thickness were investigated. Association between pack × years and these parameters were evaluated using generalized estimating equation models to adjust confounding factors such as age and sex. 410 patients with retinitis pigmentosa (≥20 years old; 209 female) were included, 164 had a smoking history. Patients without smoking history revealed a better visual acuity than non-smokers (0.39 vs 0.57, P = 0.001). The pack × years index was associated with worse visual acuity and thinner central retinal thickness after adjusting for age and sex (P = 0.0047 and 0.0099, respectively). Visual field and ellipsoid zone width showed a non-significant decline with increasing pack × years. This study indicates an association of smoking with worse macular function and structural integrity in retinitis pigmentosa patients, and hence a potential detrimental effect of smoking on the disease course.