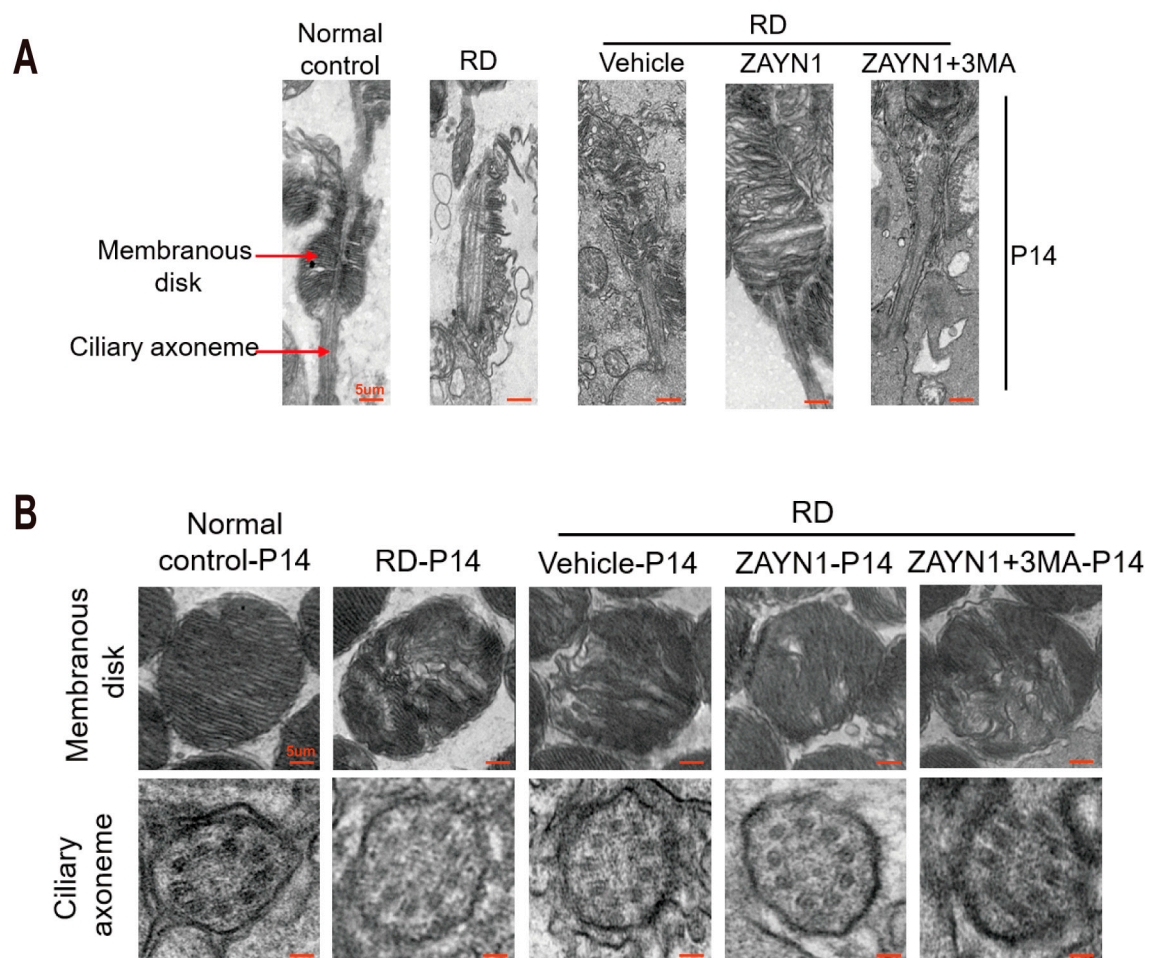
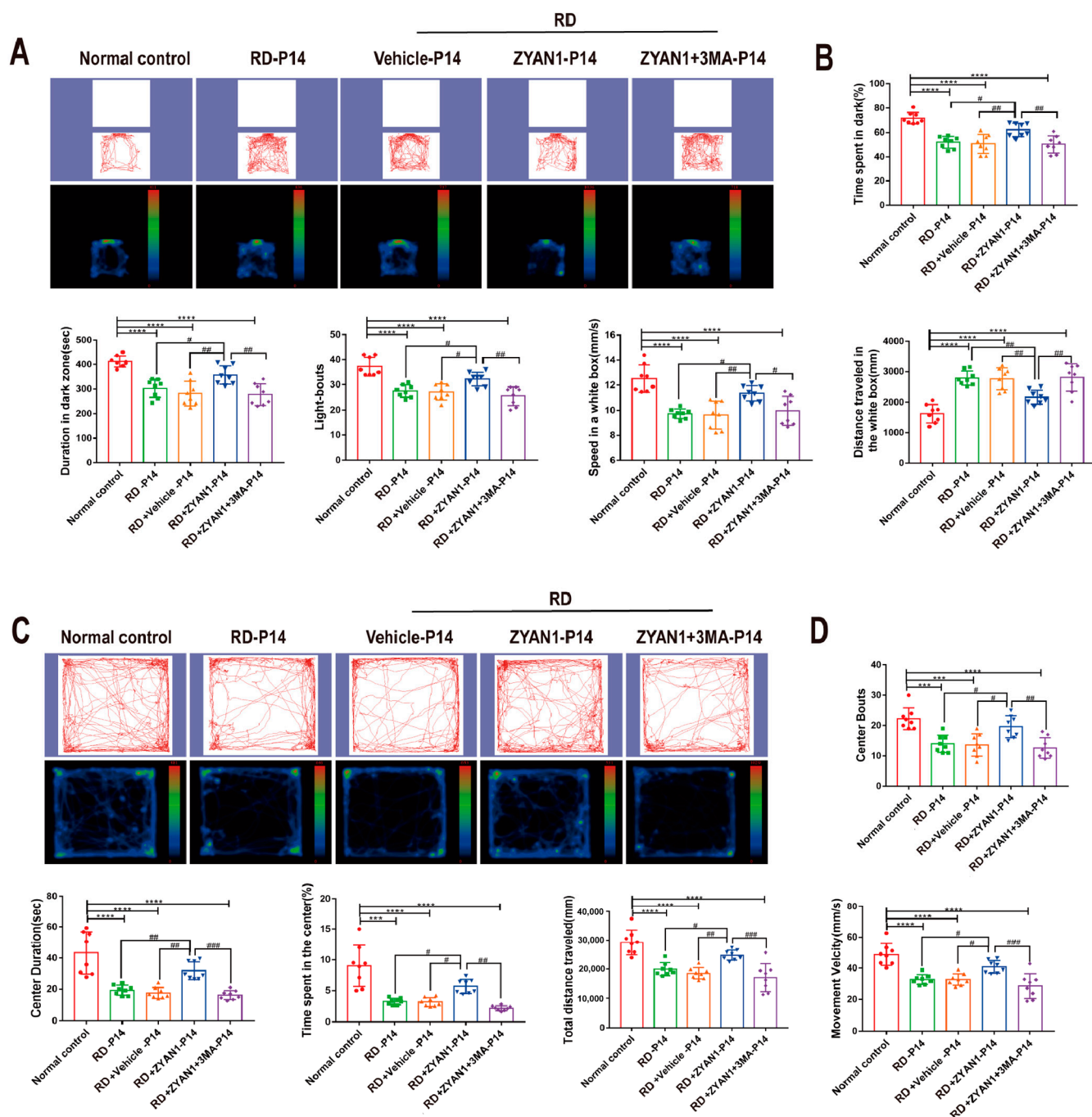


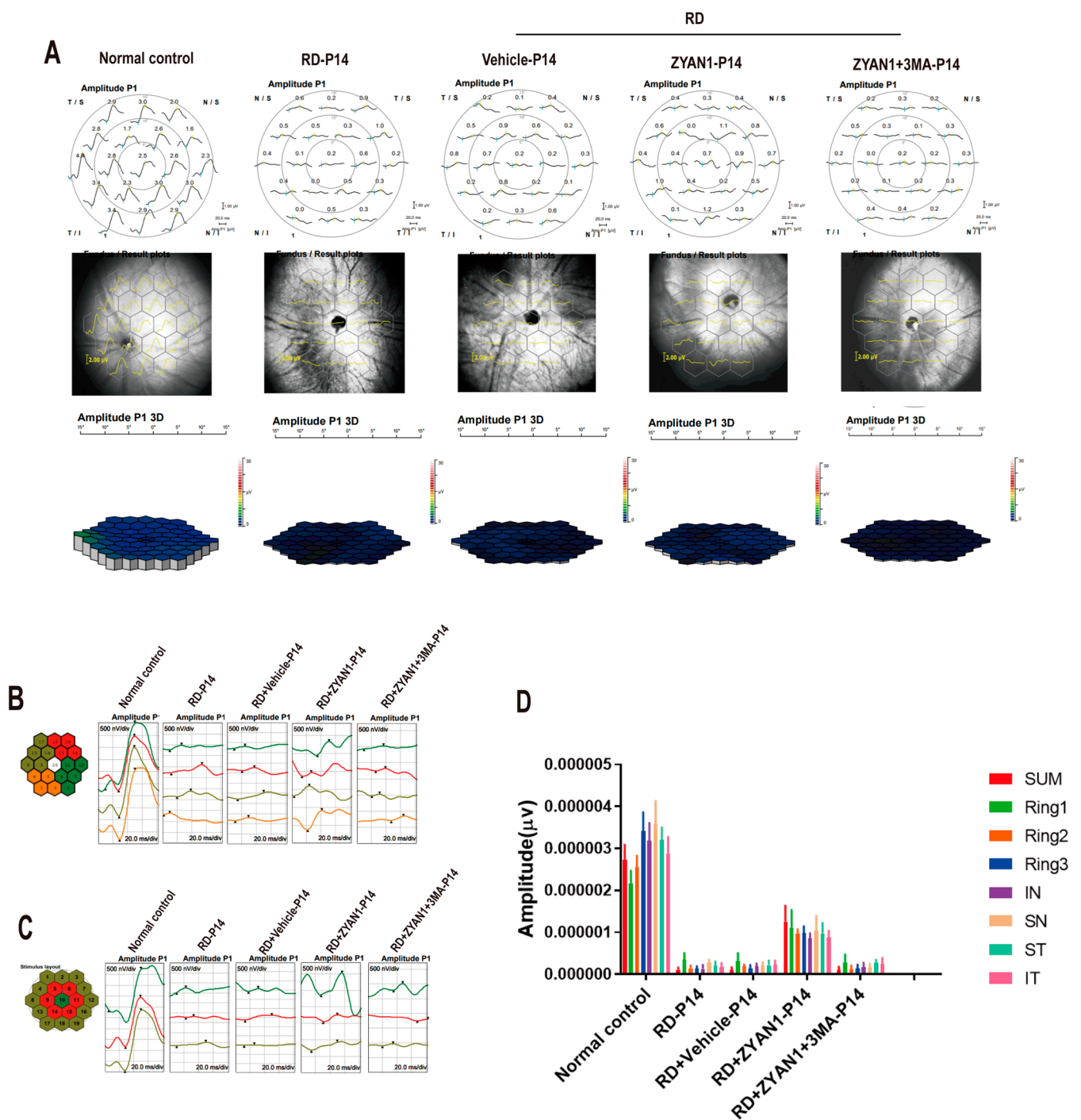
Figure S1. ZYAN1 alleviates the morphology damage in RD model at P14.



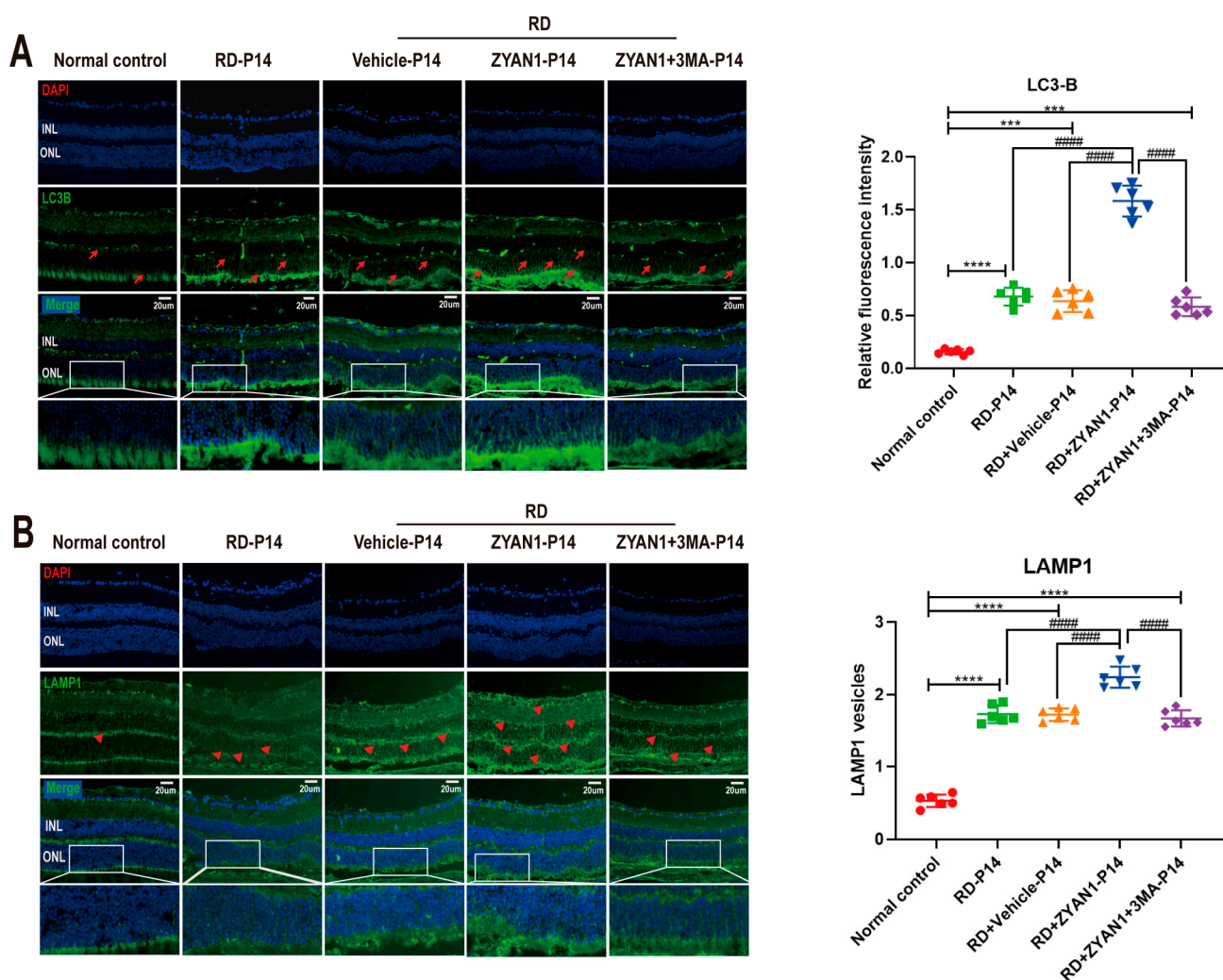
**Figure S2.** ZYAN1 mitigated the injury of ciliary axonemes and membranous disks in RD model mice at P14.



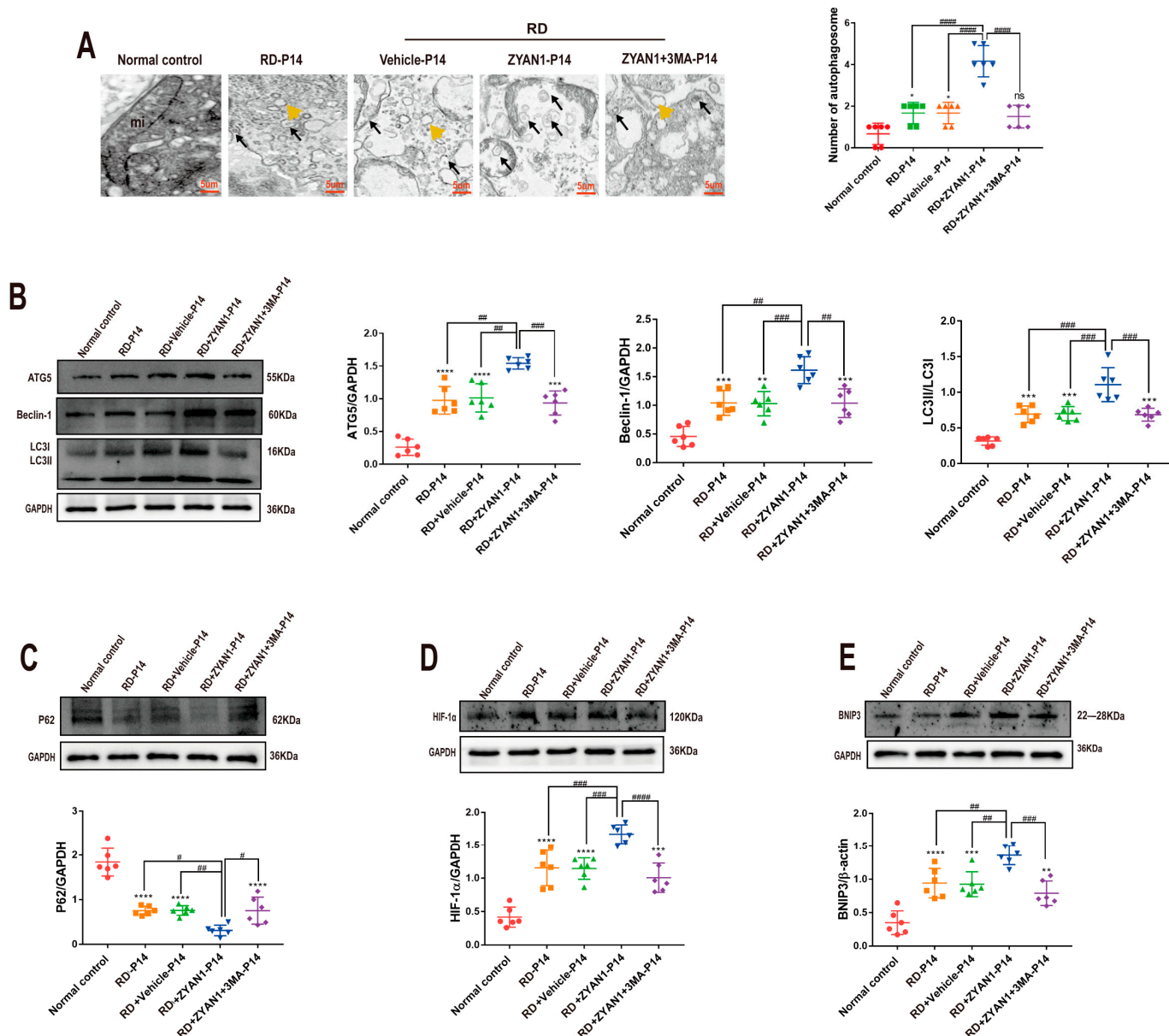
**Figure S3.** Effect of ZYAN1 on the behavior of RD model in light/dark transition test and open-field transition at P14.



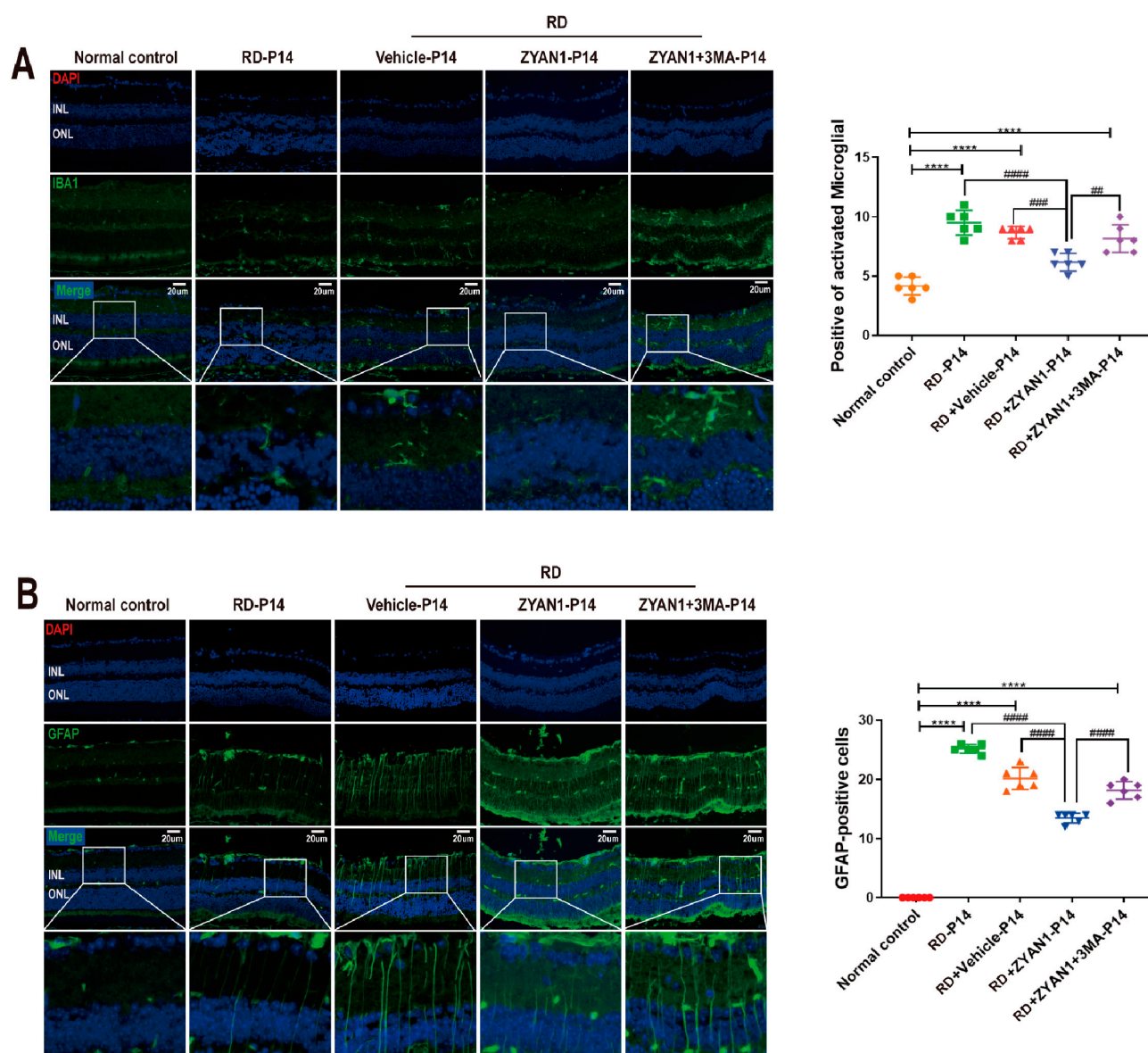
**Figure S4.** ZYAN1 can mitigate the impairments of retinal function in RD mice at P14.



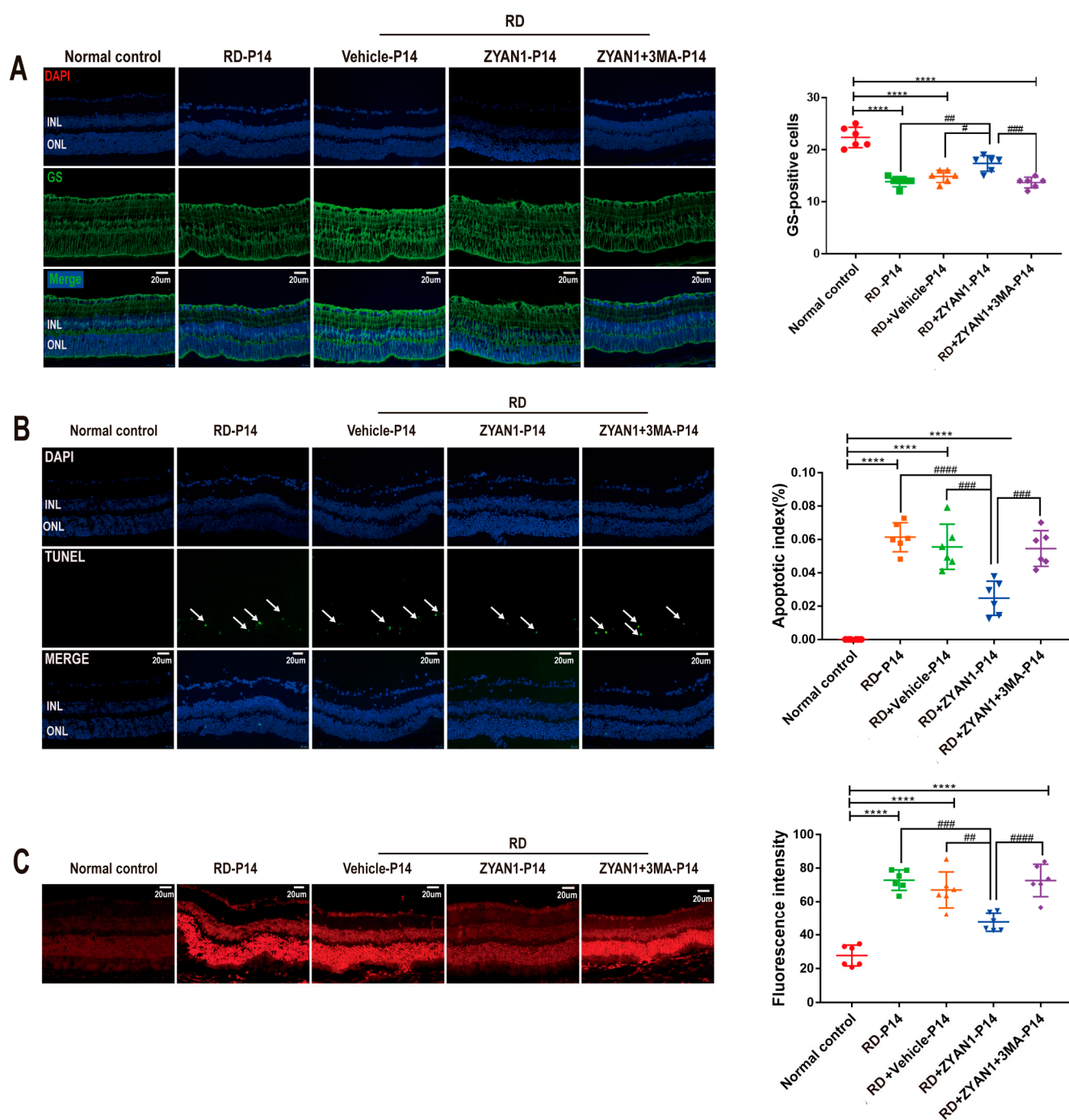
**Figure S5.** ZYAN1 enhanced the positive signal of LC3B and LAMP1 in RD models at P14.



**Figure S6.** ZYAN1 enhanced retinal autophagy in RD model at P14.



**Figure S7.** ZYAN1 inhibited the Müller and microglia activation in RD model at P14.



**Figure S8.** ZYAN1 reduces reactive gliosis, mitigated photoreceptor cell death, and ROS production in RD model at P14.