



## AB002. Cone rescue in retinitis pigmentosa by the treatment of *Lycium barbarum* (Random Clinical Trial)

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**Abstract:** Retinitis pigmentosa (RP) is a group of heredofamilial retinal diseases which is characterized by night blindness and progressive visual field loss. This study aims to study the treatment effect of *Lycium barbarum* (LB) on retinal functions and structure of RP patients. The study is a double-masked randomized controlled trial. RP subjects received scheduled eye examination including visual acuity (VA), Humphrey field analysis (HFA), Ganzfeld flash electroretinogram (ffERG) and optical coherence tomography (OCT). The suitable subjects were randomly allocated to either LB-treatment or placebo groups with the supply of LB or placebo for 12 months. There were total 41 RP subjects (22 in LB group and 19 in placebo group) completed the 12 months intervention. The compliance rates for LB and placebo groups were 89.8%±12.5% and 85.3%±7.7% respectively. As compared with placebo group, there were no deteriorations of both high and low contrast VA in LB group ( $P<0.01$ ). In addition, certain improvements of scotopic rod response and photopic cone response of ffERG were obtained in LB group ( $P<0.05$ ). In the OCT measurement, an obvious thinning of macular thickness was observed in placebo group but not found in LB group ( $P<0.05$ ). However, there were no changes found in the sensitivity of central visual field between two groups. Our results confirm that the 12-month LB treatment for RP patients had neuroprotective effect on retina and is believed to delay or minimize the deterioration of visual function in RP.

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**Keywords:** Retinitis pigmentosa (RP); *Lycium barbarum* (LB); neuroprotection; cone; retina

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