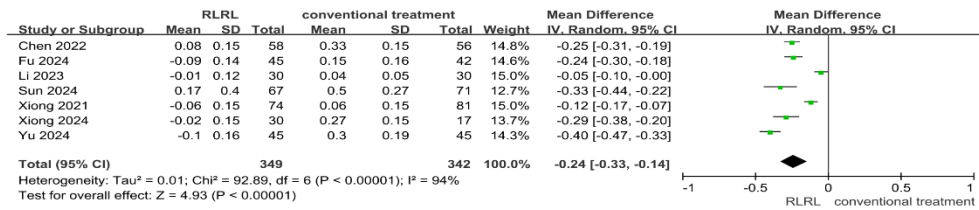
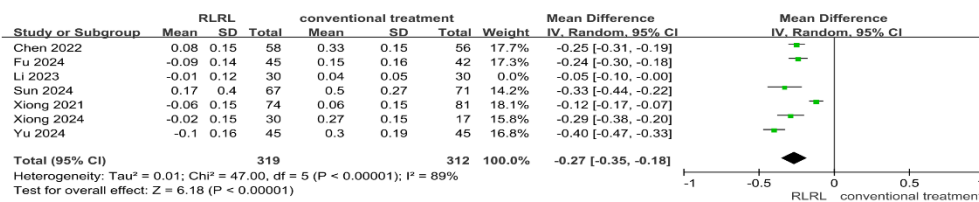


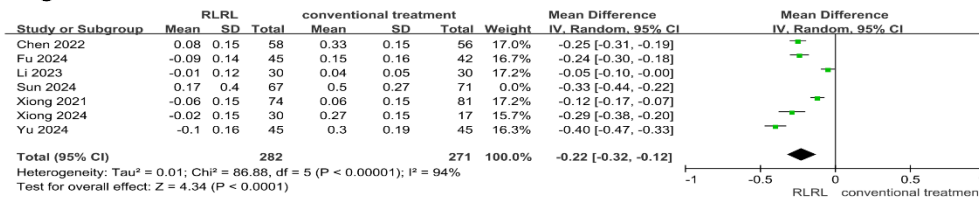
A



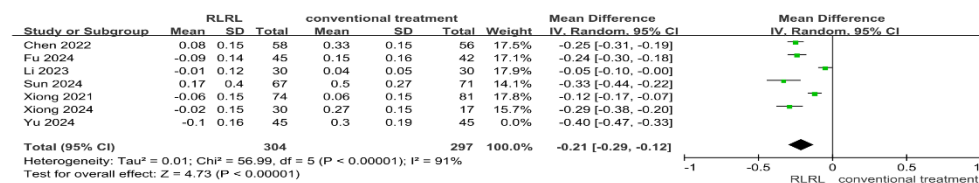
B



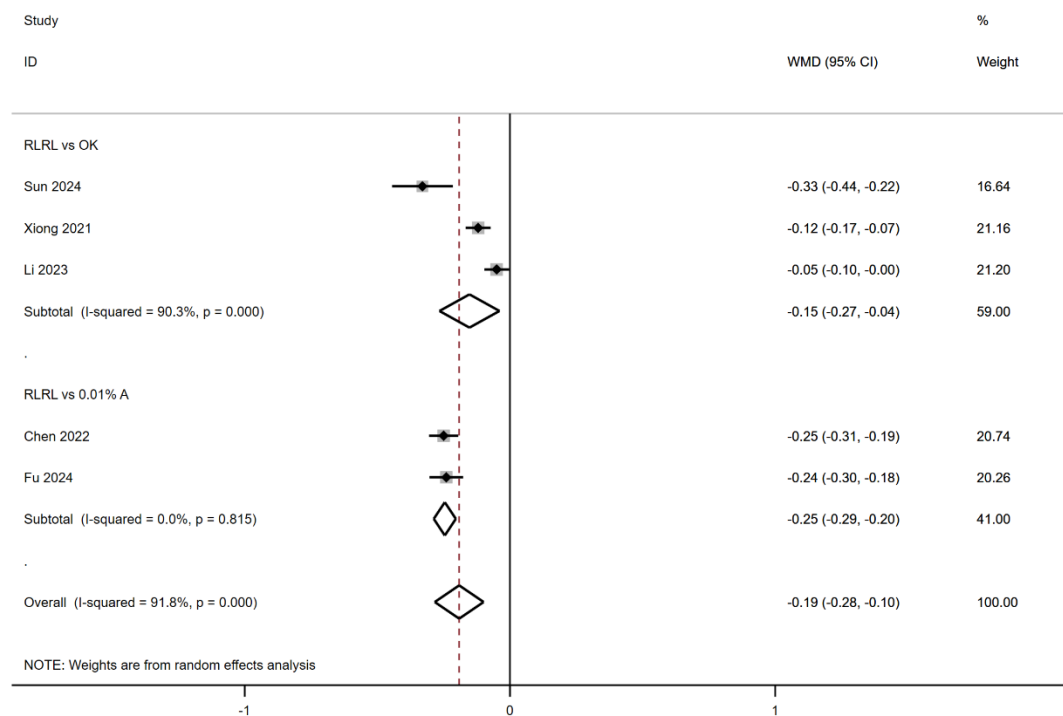
C



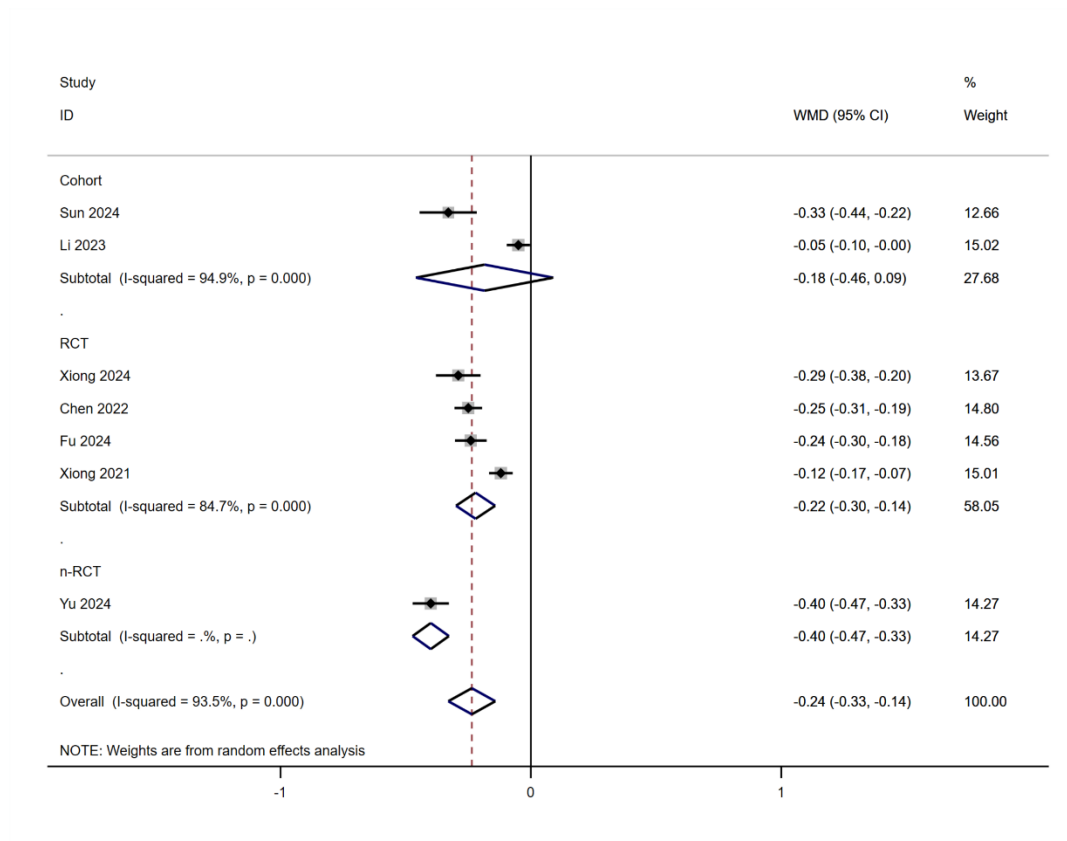
D



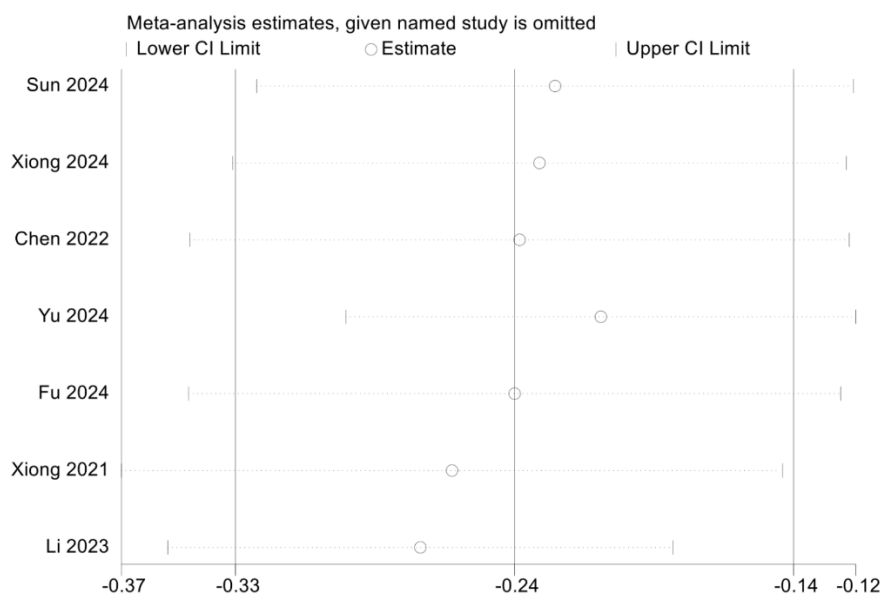
Supplementary Figure S1 Forest plots of the changes in AL (mm) between RLRL and control group and sensitivity analysis excluding non-RCTs. AL= axial length; WMD = weighted mean differences; RLRL = repeated low-level red-light; non-RCT= non randomized clinical trial



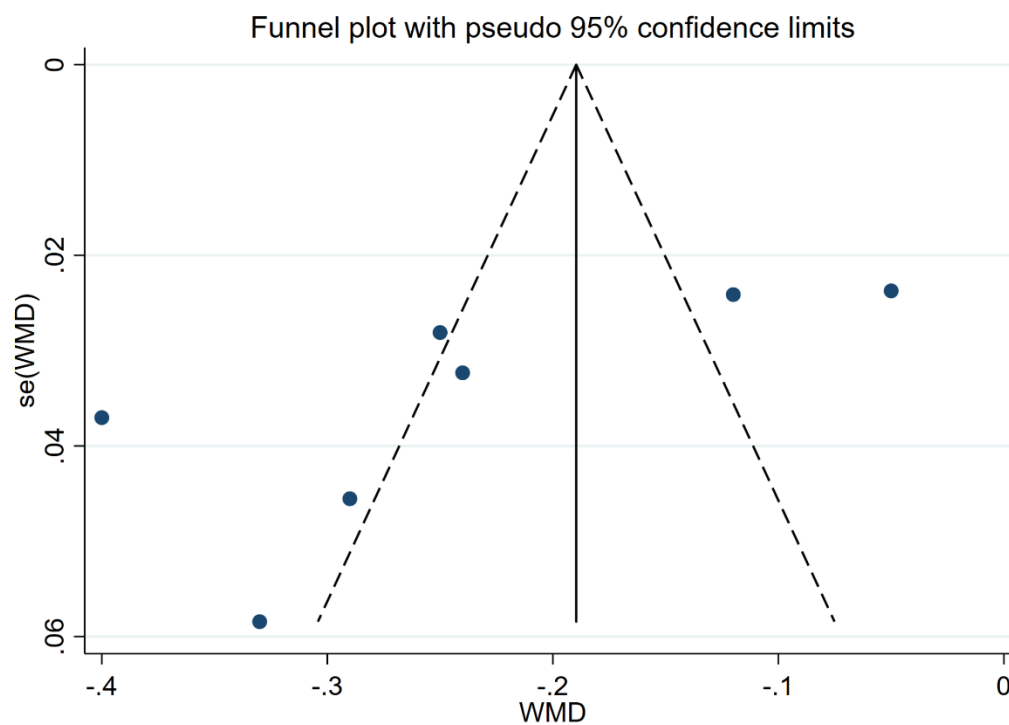
Supplementary Figure S2 Forest plots of the changes in AL (mm) between RLRL and control group according to different treatment. AL= axial length; WMD = weighted mean differences; RLRL = repeated low-level red-light; OK= orthokeratology; A= atropine



Supplementary Figure S3 Forest plots of the changes in AL (mm) between RLRL and control group according to study design. AL= axial length; WMD = weighted mean differences; RLRL = repeated low-level red-light; RCT= randomized clinical trial; n-RCT= non randomized clinical trial; cohort= cohort study.



Supplementary Figure S4 sensitivity analysis of the included studies



Supplementary Figure S5 funnel plot of the included studies

Supplementary Table S1 the risk of bias of the non-randomized controlled trial and cohort studies (ROBINS-I)

Study	Pre-intervention		At intervention		Post-intervention			Overall risk of bias
author/ Year	Bias due to confoundin g	Bias in selection of participa nts into the study	Bias in classification of interventions	Bias due to deviations from intended interventio ns	Bias due to missing data	Bias in measurement of outcomes	Bias in selectio n of the reporte d result	Low/ moderate/ serous/ critical
Yu 2024	moderate	moderate	Low	Low	Low	Low	Low	moderate
Sun 2024	moderate	Low	Low	moderate	Low	Low	Low	moderate
Li 2023	moderate	moderate	Low	Low	Low	Low	Low	moderate