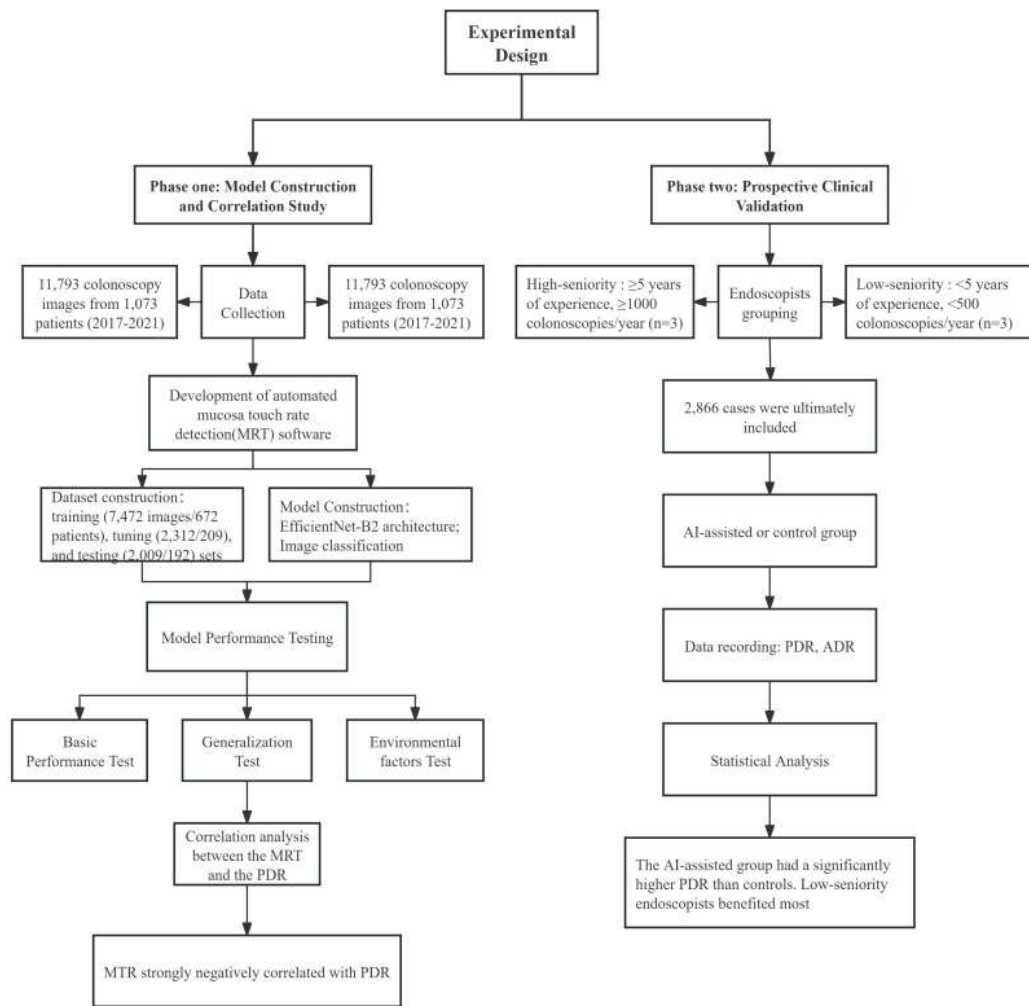




**Supplementary Figure 1 Study design flowchart.** Schematic illustration of the two-phase study design. Phase I (Model Construction and Correlation Study): An AI model was developed and validated for mucosa touch and ileocecal recognition, followed by correlation analysis between mucosa touch rate (MTR) and polyp detection rate (PDR). Phase II (Prospective Clinical Validation): A prospective, single-blind, self-controlled trial was conducted to evaluate the impact of real-time AI-assisted MTR feedback on PDR and ADR, with subgroup analyses stratified by endoscopist seniority and patient age.