Supplement

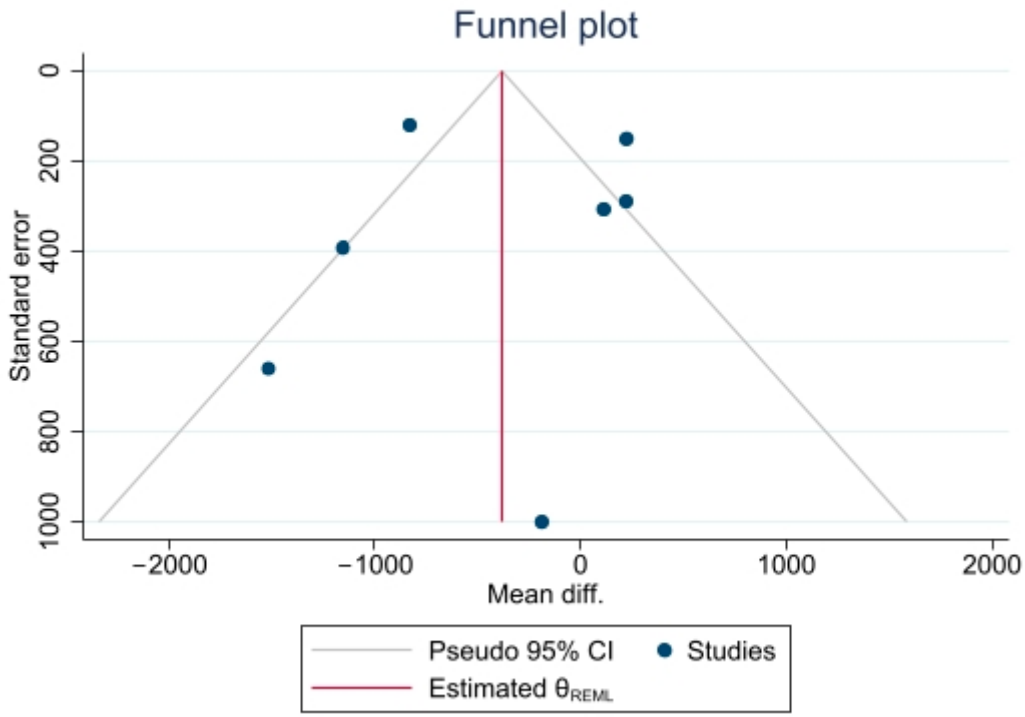

Figure S1. Funnel plot of mean difference for serum ferritin.

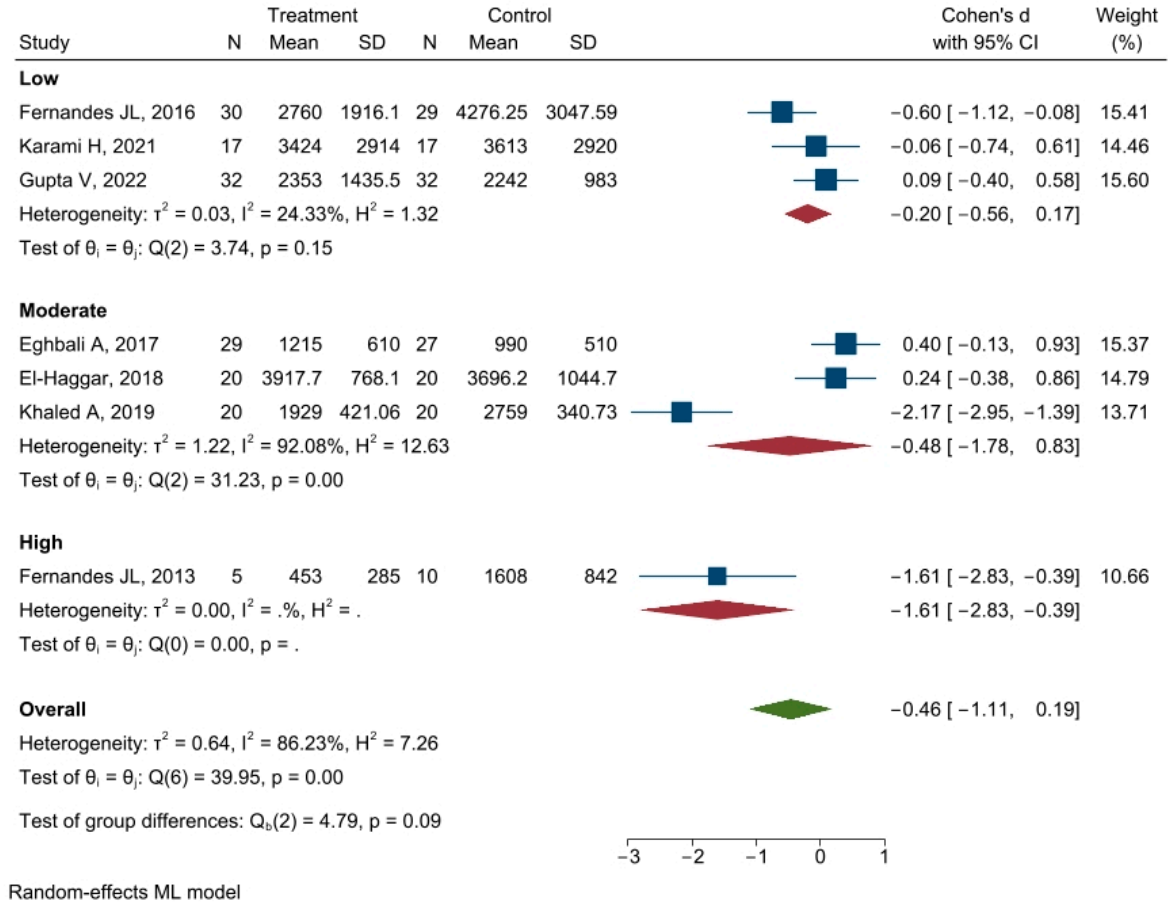

Figure S2. Forest plot of Cohens' d for serum ferritin based the risk of bias assessment.

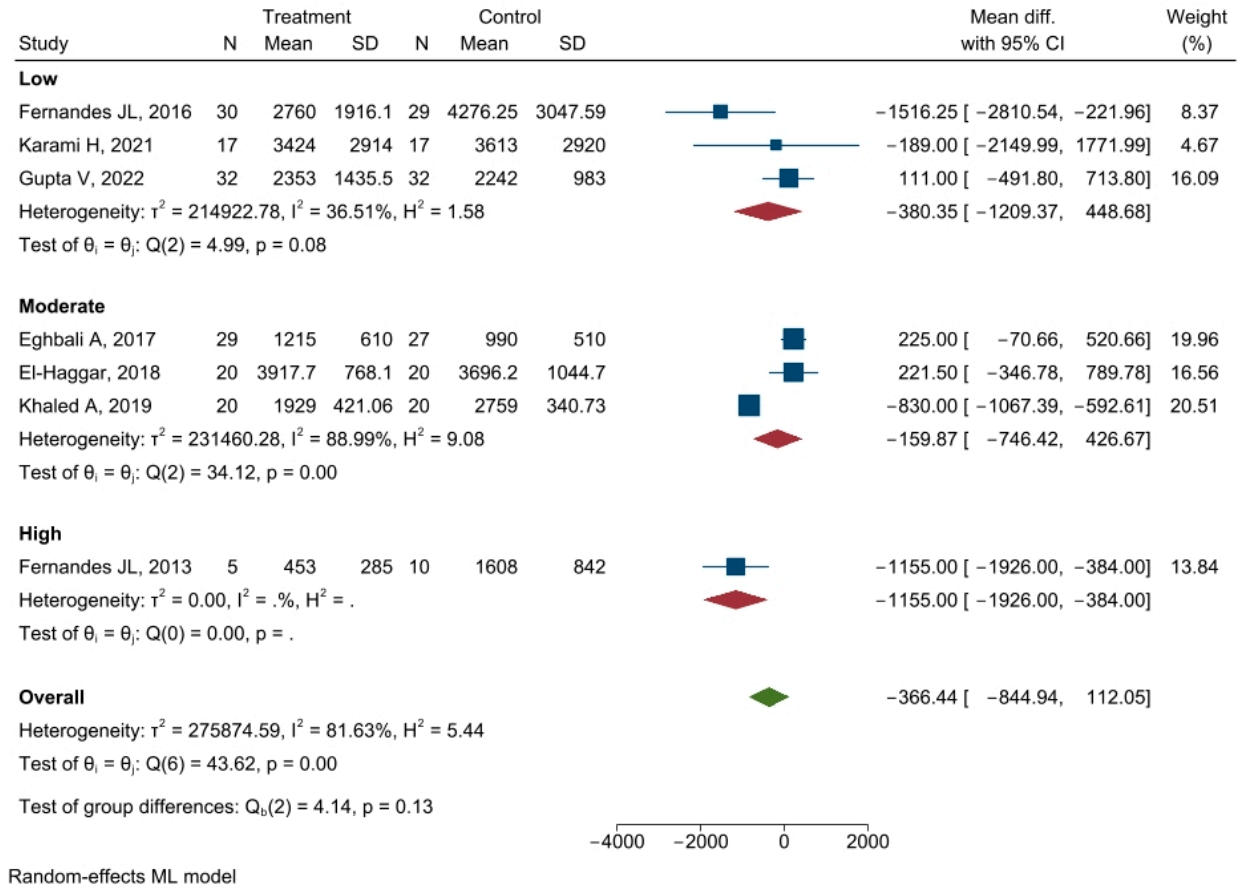

Figure S3. Forest plot of mean difference for serum ferritin based the risk of bias assessment.

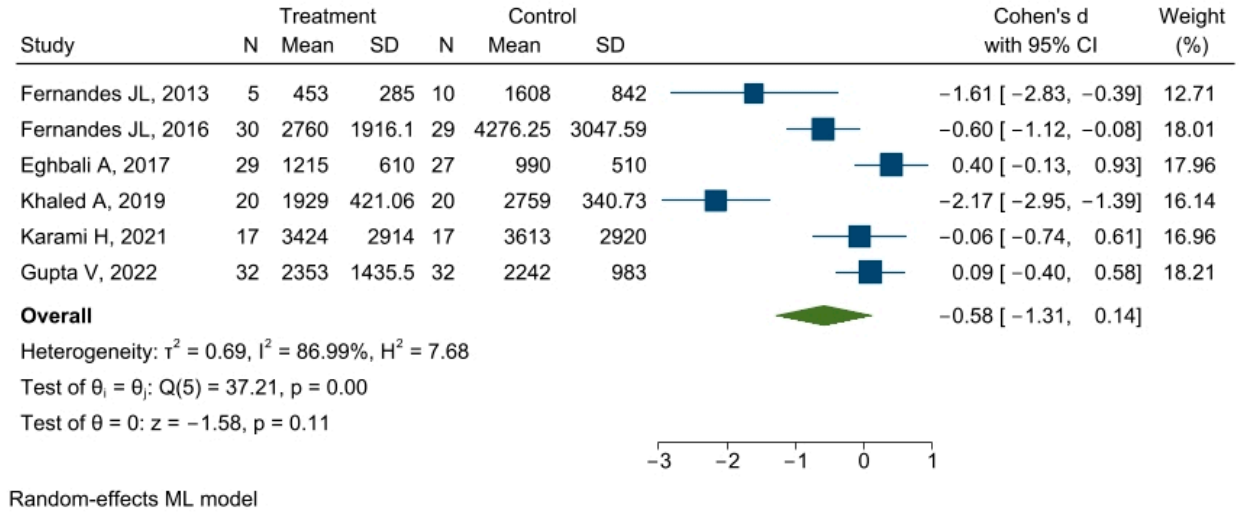

Figure S4. Forest plot of Cohen's d for serum ferritin after removing El-Haggar's study.

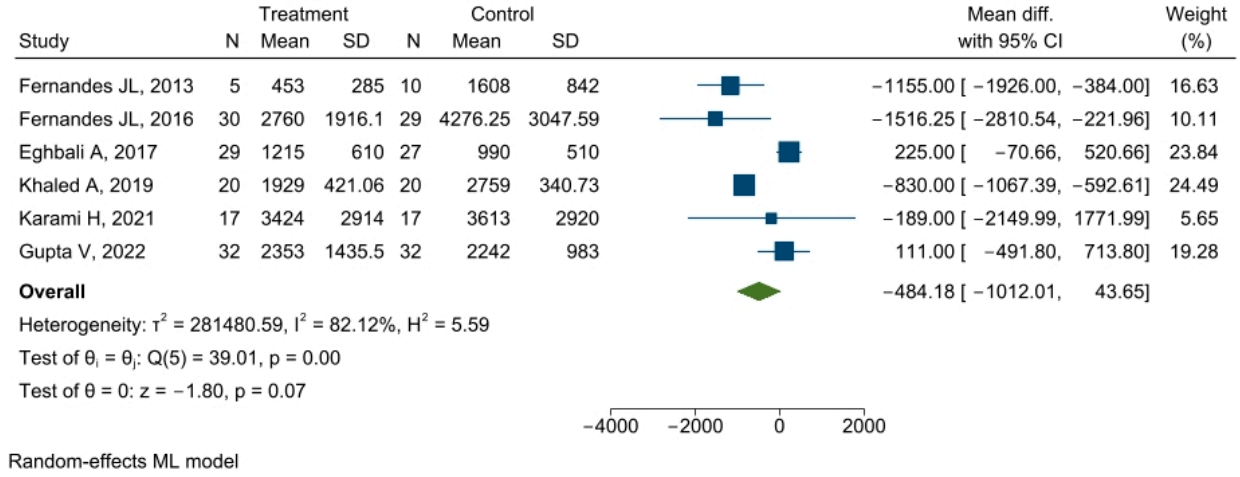

Figure S5. Forest plot of mean difference for serum ferritin after removing El-Haggar's study.

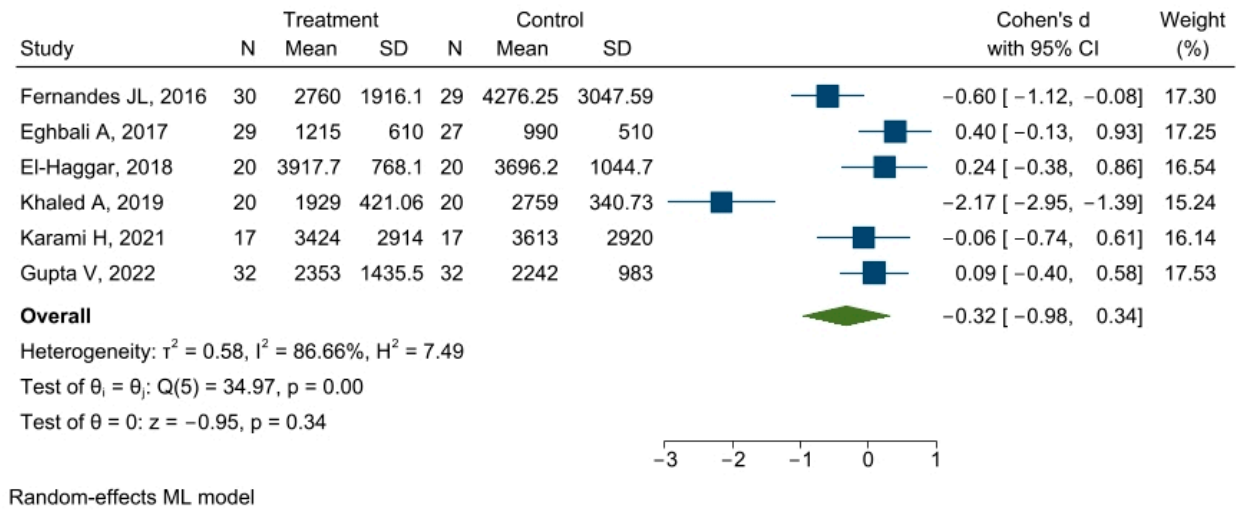

Figure S6. Forest plot of Cohen's d for serum ferritin after removing the study of Fernandes (2013).

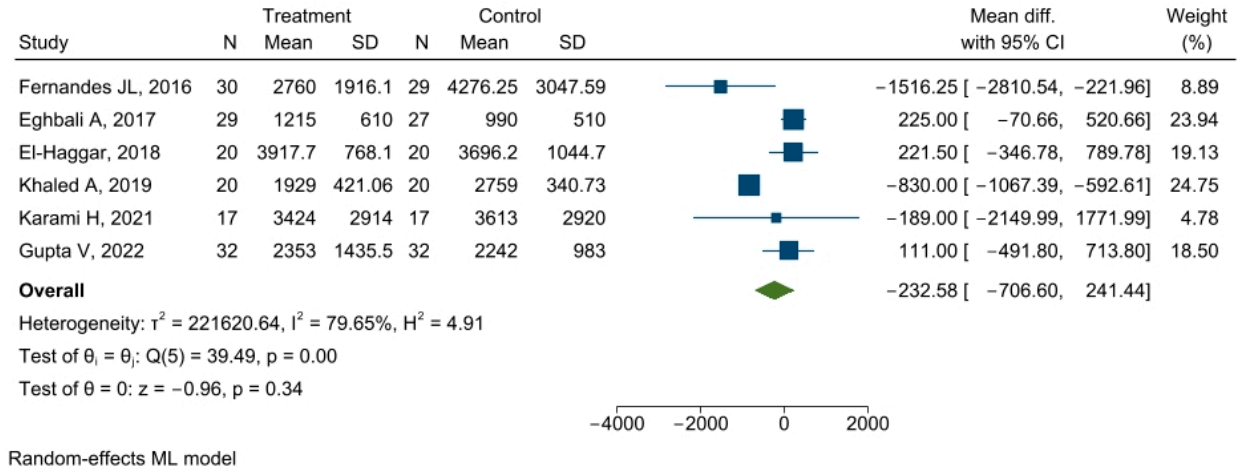

Figure S7. Forest plot of mean difference for serum ferritin after removing the study of Fernandes (2013).

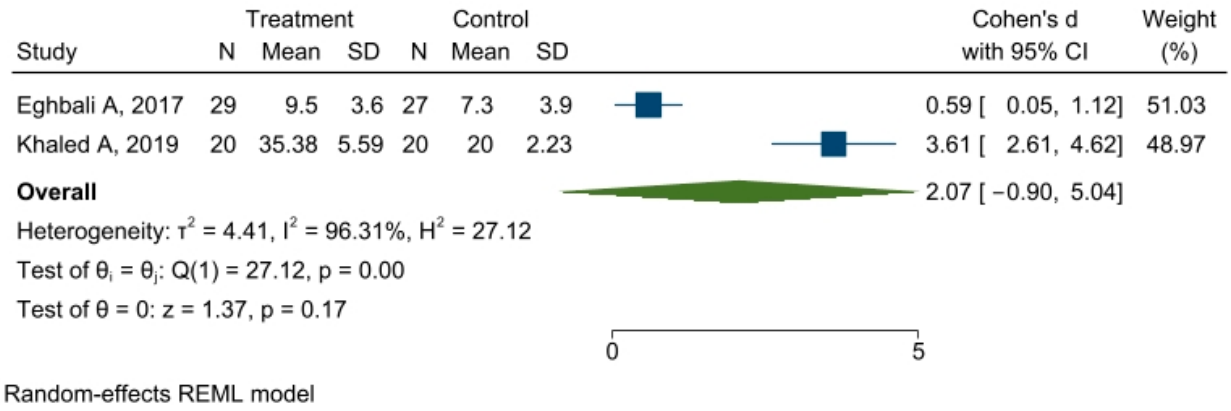

Figure S8. Forest plot of Cohens' d for liver MRI T2*.

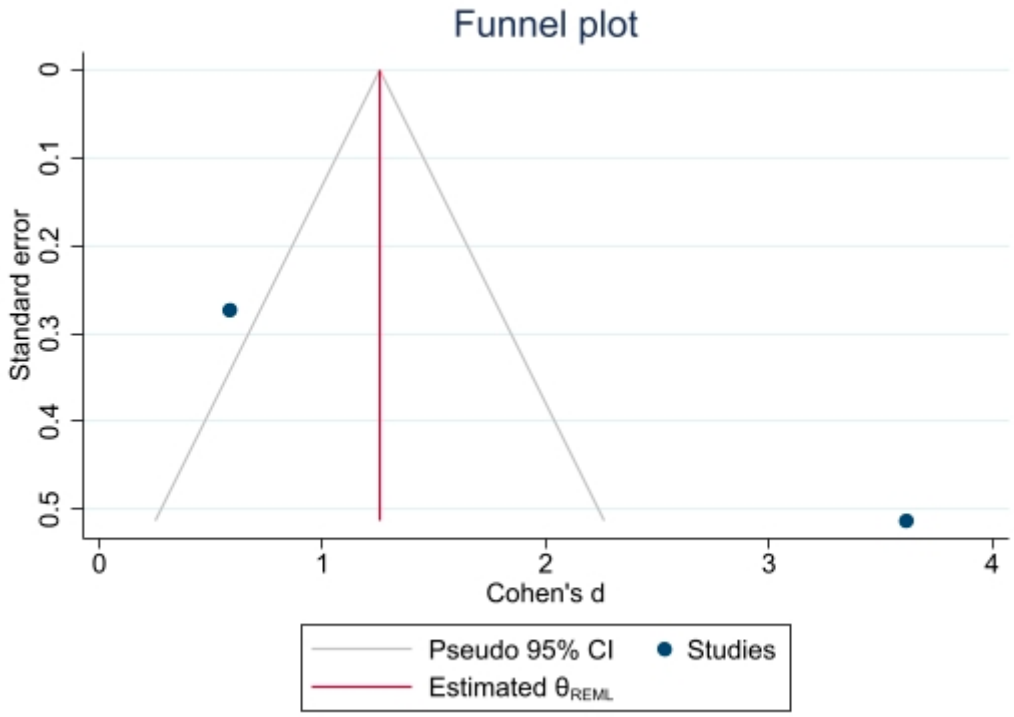

Figure S9. Funnel plot for liver MRI T2*.

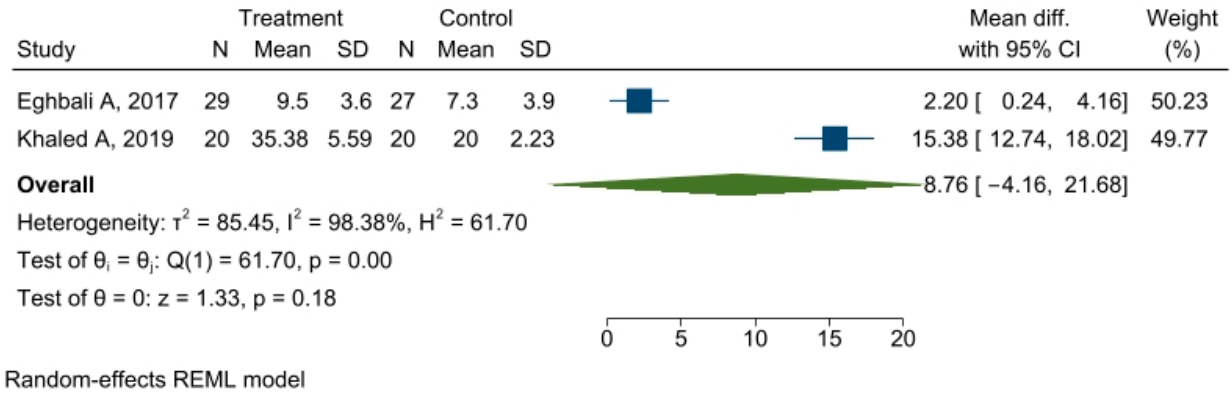

Figure S10. Forest plot of mean difference for liver MRI T2*.

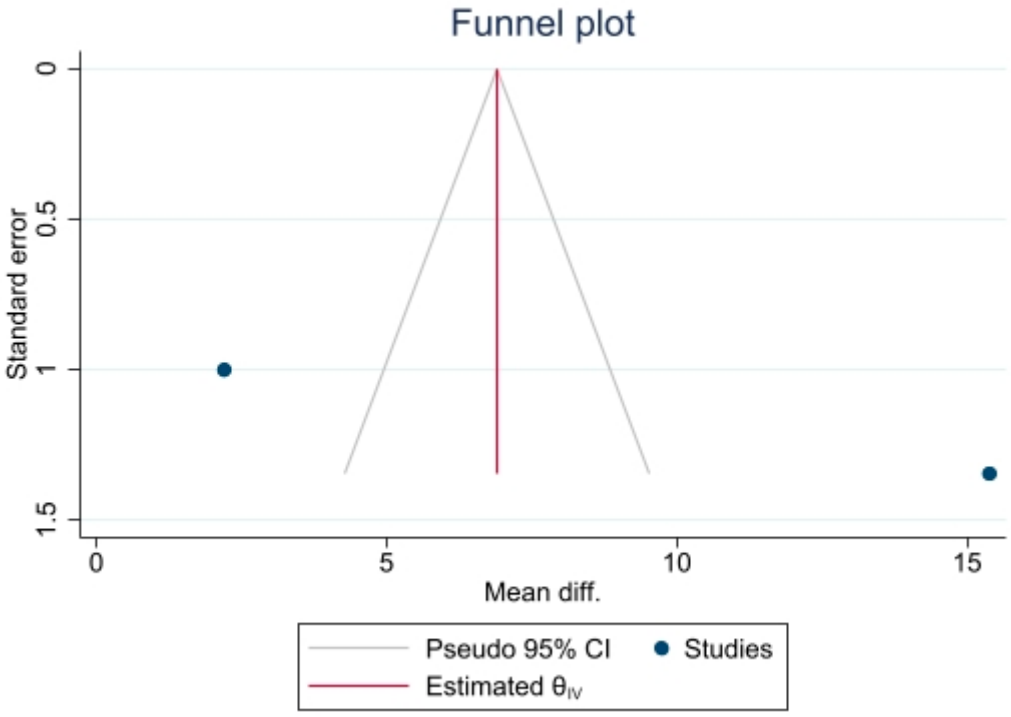

Figure S11. Funnel plot of mean difference for liver MRI T2*.

Table S1. Assessment of risk of bias of included trials with support for judgment.

Bias	Judgment	Support for judgment
Eghbali et al. (2017)		
Random sequence generation	Low risk	Quote: ”Randomized, parallel-group trial” Comment: Probably done.
Allocation concealment	Low risk	Quote: “63 patients were randomized 1:1” Comment: Probably done.
Blinding of participants and personnel	Unclear	Comment: Not described in sufficient detail.
Blinding of outcome assessment	Unclear	Comment: Not described in sufficient detail.
Incomplete outcome data	Low risk	Comment: No missing outcome data.
Selective reporting	Low risk	Comment: All outcomes have been reported based on the protocol.
Other bias	Low risk	Comment: Appropriate sample size calculation method; specified inclusion and exclusion criteria, the clinical trial registry number was IRCT2015080720715N2, no conflict of interest.
El-Haggar et al. (2018)		
Random sequence generation	Low risk	Quote: ” comparative randomized clinical trial” Comment: Probably done.
Allocation concealment	Low risk	Quote: “Forty patients were randomized into two groups” Comment: Probably done.
Blinding of participants and personnel	Unclear	Comment: Not described in sufficient detail.
Blinding of outcome assessment	Unclear	Comment: Not described in sufficient detail.
Incomplete outcome data	Low risk	Comment: No missing outcome data.
Selective reporting	Low risk	Comment: All outcomes have been reported based on the protocol.
Other bias	Low risk	Comment: specified inclusion and exclusion criteria, the clinical trial registry number NCT02671695, no conflict of interest.
Fernandes et al. (2016)		
Random sequence generation	Low risk	Quote: “multicenter, randomized, placebo-controlled” Comment: Probably done.
Allocation concealment	Low risk	Quote: “Allocation of patients and pill distribution were done by the central pharmacy” Comment: Probably done.
Blinding of participants and personnel	Low risk	Quote: “double-blind trial”, “Allocation of patients and pill distribution were done by the central pharmacy” Comment: Probably done.
Blinding of outcome assessment	Low risk	Quote: “double-blind trial” Comment: Probably done.
Incomplete outcome data	Low risk	Comment: No missing outcome data.
Selective reporting	Low risk	Comment: All outcomes have been reported.
Other bias	Low risk	Comment: Appropriate sample size calculation method; specified inclusion and exclusion criteria, no conflict of interest.
Fernandes et al. (2013)		

Random sequence generation	Unclear	Comment: Not described in sufficient detail.
Allocation concealment	Low risk	"patients were randomized to receive amlodipine"
Blinding of participants and personnel	High risk	"Designed as an open-label, controlled trial."
Blinding of outcome assessment	Low risk	"The readers of the MR images were blinded to treatment allocation."
Incomplete outcome data	Low risk	Comment: No missing outcome data.
Selective reporting	Low risk	Comment: All outcomes have been reported based on the protocol.
Other bias	Low risk	Comment: specified inclusion and exclusion criteria, the clinical trial registry number NCT01125254, no conflict of interest.
Karami et al. (2021)		
Random sequence generation	Low risk	Quote: "randomized, double-blind, crossover trial" Comment: Probably done.
Allocation concealment	Low risk	Quote: "online web randomizer was applied to produce a sequence of block randomization codes" Comment: Probably done.
Blinding of participants and personnel	Low risk	Quote: "double-blind trial" Comment: Probably done.
Blinding of outcome assessment	Low risk	Quote: "double-blind trial" Comment: Probably done.
Incomplete outcome data	Low risk	Comment: No missing outcome data.
Selective reporting	Low risk	Comment: All outcomes have been reported based on the protocol.
Other bias	Low risk	Comment: specified inclusion and exclusion criteria, the clinical trial registry number IRCT20090613002027N15, no conflict of interest.
Khaled et al. (2019)		
Random sequence generation	Low risk	Quote: "Single-center, prospective randomized, placebo-controlled trial with the allocation of a 1:1 ratio." Comment: Probably done.
Allocation concealment	Low risk	Quote: "The clinical pharmacist generated a computer list to randomly allocate the patients" Comment: Probably done.
Blinding of participants and personnel	Unclear	Comment: Not described in sufficient detail.
Blinding of outcome assessment	Unclear	Comment: Not described in sufficient detail.
Incomplete outcome data	Low risk	Comment: No missing outcome data.
Selective reporting	Low risk	Comment: All outcomes have been reported based on the protocol.
Other bias	Low risk	Appropriate sample size calculation method; specified inclusion and exclusion criteria, the clinical trial registry number is PACTR201902478249291. no conflict of interest.