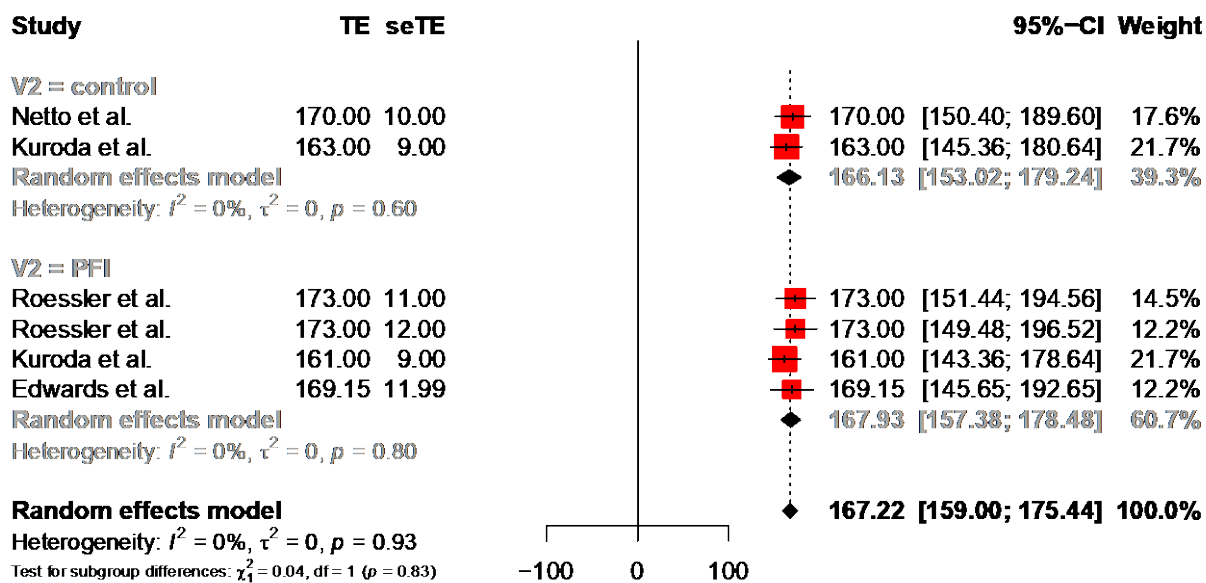


APPENDIX 1

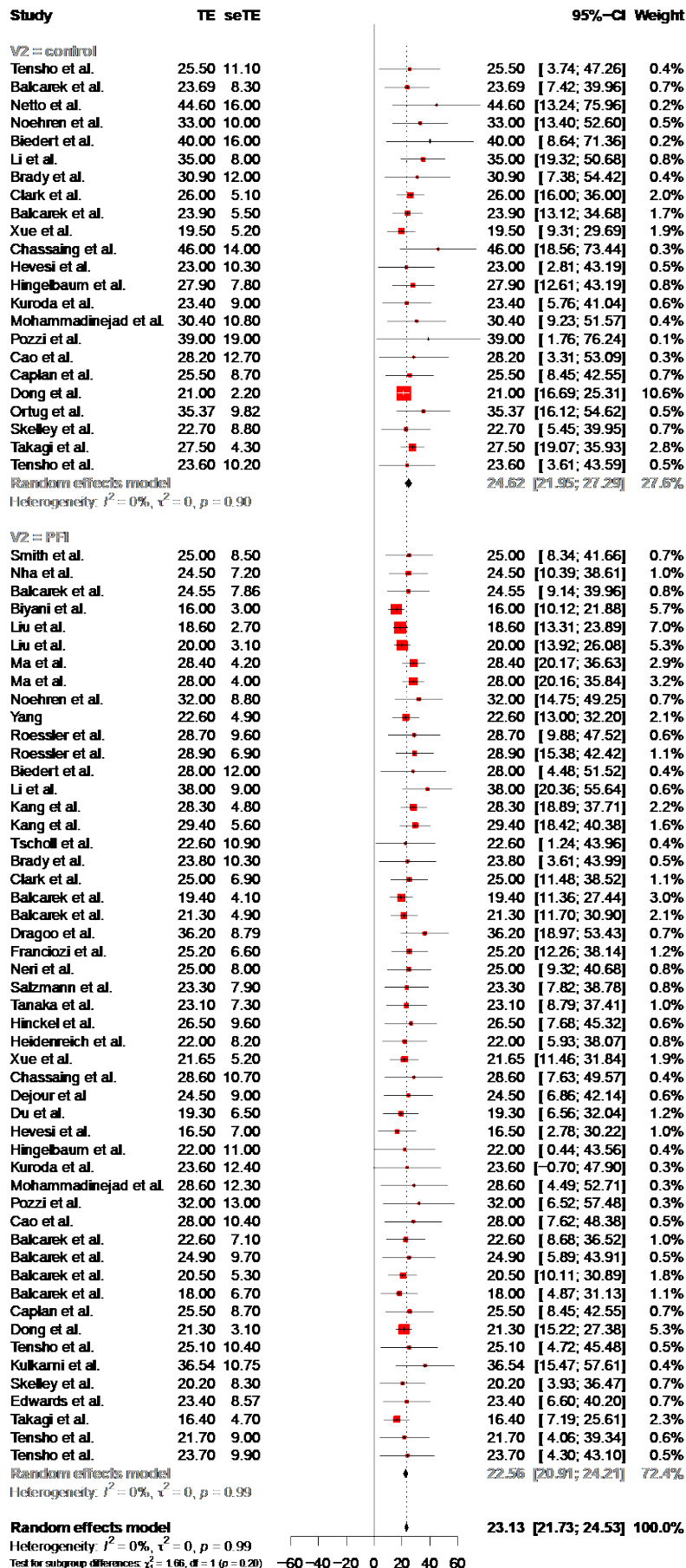
Appendix Table A1. List of measurements with number of studies and categorization of each measurement

Measurement	No. of Studies	Category	Measurement	No. of Studies	Category
TT-TG mean	59	Patellar tracking	3D flexion angle	1	Patellar tracking
Insall-Salvati / modified Insall-Salvati ratio	26	Patellar height	3D hip-knee-ankle angle	1	Patellar tracking
Caton-Deschamps ratio	26	Patellar height	Angle of Fulkerson	1	Trochlear morphology
Patellar tilt / inclination angle	22	Patellar inclination	Angle of Grelsamer	1	Patellar inclination
Femoral / trochlear sulcus angle	19	Trochlear morphology	Anterior condylar angle	1	Trochlear morphology
Congruence / Merchant angle	13	Patellar tracking	Femoral sulcus depth	1	Patellar tracking
Dejour classification	12	Trochlear morphology	Femur torsion	1	Patellar tracking
Trochlear groove depth	10	Trochlear morphology	Interepicondylar distance (axial and coronal)	1	Soft tissue description
Lateral trochlear or facet inclination / tilt angle	9	Trochlear morphology	Lateral condyle index	1	Trochlear morphology
Patellar lateral displacement shift	9	Patellar tracking	Lateral facet size	1	Trochlear morphology
TT-PCL distance/ratio	9	Patellar tracking	Lateral patellar edge	1	Patellar tracking
2D/3D knee rotation angle	6	Patellar tracking	Lateral stress shift ratio	1	Soft tissue description
Lateral patellofemoral angle	6	Patellar inclination	Lateral tracking	1	Patellar tracking
Tibial/Tibial tubercle torsion	6	Patellar tracking	Maldague stage	1	Patellar inclination
Blackburne-Peel (BP) ratio	5	Patellar height	Malleolar condylar angle	1	Patellar tracking
Femorotibial / femoral joint angle	5	Patellar tracking	Maximal mediolateral axis ratio to TT-TG	1	Patellar tracking
Medial condylar height/size	5	Trochlear morphology	Mechanical proximal medial tibial angle (mPMTA)	1	Patellar tracking
MPFL thickness	5	Soft tissue description	Medial facet size	1	Trochlear morphology
Patellar trochlear index (PTI)	5	Patellar height	Medial stress shift ratio	1	Soft tissue description
Q-angle	5	Patellar tracking	Medial trochlear slope	1	Trochlear morphology
Trochlear facet asymmetry	5	Trochlear morphology	Morphology ratio	1	Patellar height
Bisect offset %	4	Patellar tracking	Overall torsion	1	Patellar tracking
Femoral anteversion	4	Patellar tracking	P-TE distance	1	Patellar height
Lateral condylar height / size	4	Trochlear morphology	Patella alta	1	Patellar height
Central trochlear / condylar height	3	Trochlear morphology	Patella edema	1	Soft tissue description
Distal lateral femoral angle	3	Patellar tracking	Patella shape	1	Patellar morphology
Patella articular overlap	3	Patellar height	Patellar linear displacement	1	Patellar tracking
PT-TG distance	3	Patellar tracking	Patellar tendon length	1	Soft tissue description
Trochlear length	3	Trochlear morphology	Patellofemoral contacting surface ratio	1	Patellar height
VMO morphology	3	Soft tissue description	PT-PCL distance	1	Patellar tracking
Condyle asymmetry	2	Trochlear morphology	PT-TG angle	1	Patellar tracking
Index of patellar height	2	Patellar height	PT-TT distance	1	Patellar tracking
J-sign	2	Patellar tracking	PTG distance	1	Patellar tracking

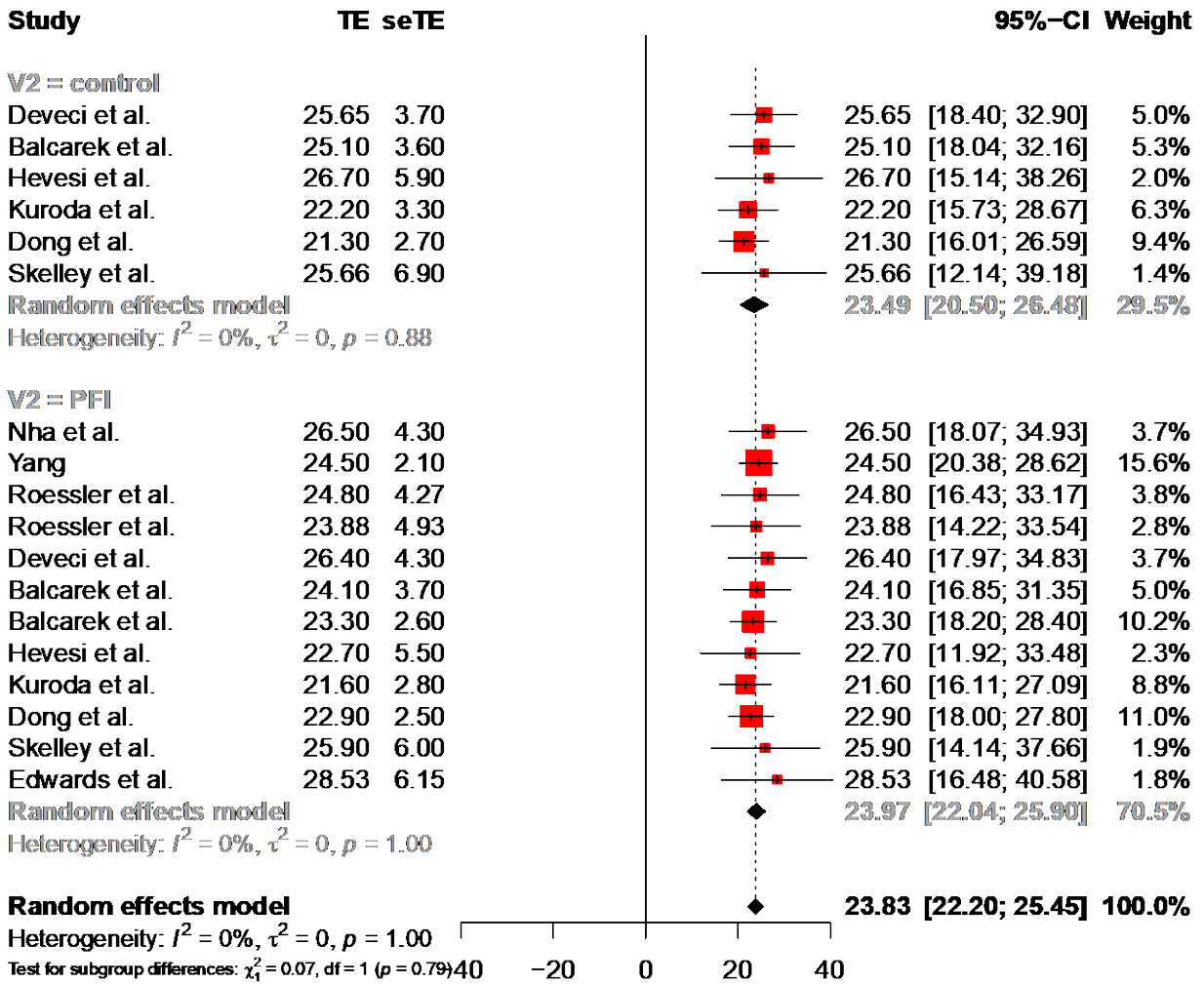
Lateral-to-medial trochlear ratio / ETIT	2	Trochlear morphology	Relative central trochlear height	1	Trochlear morphology
Lateral trochlear slope	2	Patellar tracking	Relative lateral trochlear height	1	Trochlear morphology
Laurin angle	2	Patellar tracking	Relative medial trochlear height	1	Trochlear morphology
Mechanical axis deviation	2	Patellar tracking	Relative transverse trochlear shift	1	Trochlear morphology
Medial trochlear / lateral trochlear height ratio	2	Trochlear morphology	Roman arch	1	Soft tissue description
MPFL length	2	Soft tissue description	Slope asymmetry	1	Patellar tracking
Outerbridge score	2	Soft tissue description	TC-TB distance	1	Patellar tracking
Patellar length	2	Patellar morphology	Tibial plateau angle	1	Patellar tracking
Patellar width / patellar width ratio (PWR)	2	Patellar morphology	Trochlear angle	1	Trochlear morphology
Patellofemoral axial engagement index	2	Patellar tracking	Trochlear bump	1	Trochlear morphology
Posterior condylar angle	2	Trochlear morphology	Trochlear dysplasia index	1	Trochlear morphology
Sagittal patellar engagement	2	Patellar height	Trochlear groove area	1	Trochlear morphology
Tibial slope	2	Patellar tracking	Trochlear groove medialization	1	Trochlear morphology
Tibial tubercle lateralization (TTL)	2	Patellar tracking	Trochlear groove thickness	1	Trochlear morphology
Trochlear bossing	2	Trochlear morphology	Trochlear shape	1	Trochlear morphology
Trochlear prominence	2	Trochlear morphology	Trochlear volume	1	Trochlear morphology
Wiberg classification	2	Patellar morphology	Trochlear width	1	Trochlear morphology
% of epicondylar height CCH	1	Trochlear morphology	TT-PT distance	1	Patellar tracking
% of epicondylar width LCH	1	Trochlear morphology	TT-TG index	1	Patellar tracking
% of epicondylar width MCH	1	Trochlear morphology			
% of epicondylar width TGT	1	Trochlear morphology			



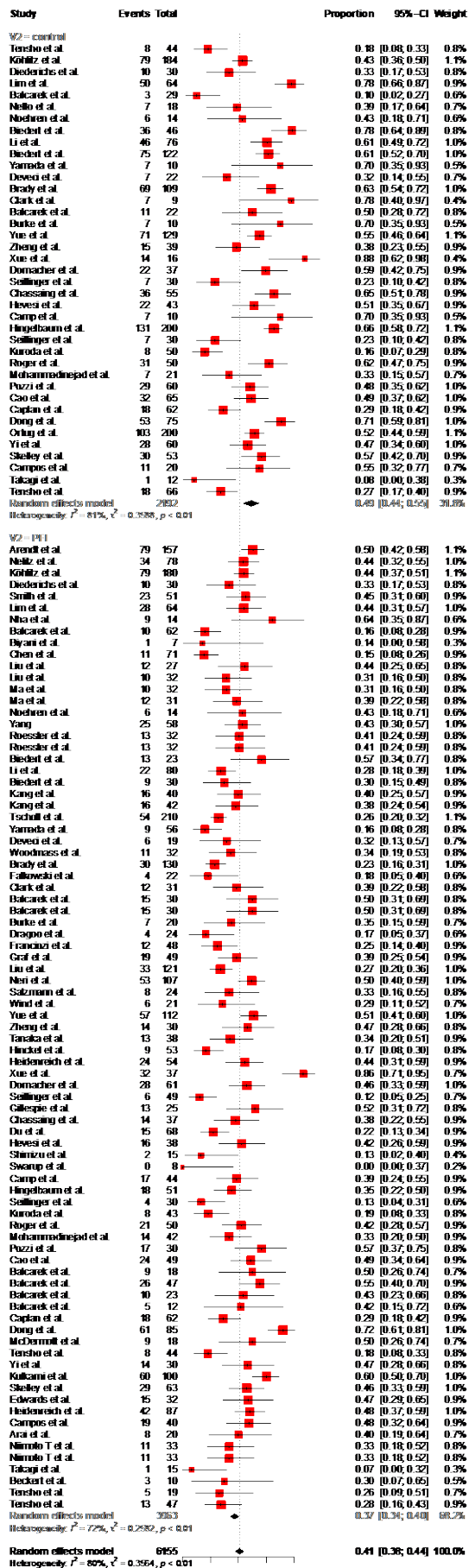
Appendix Figure A1. Patient Height, PFI vs. Control



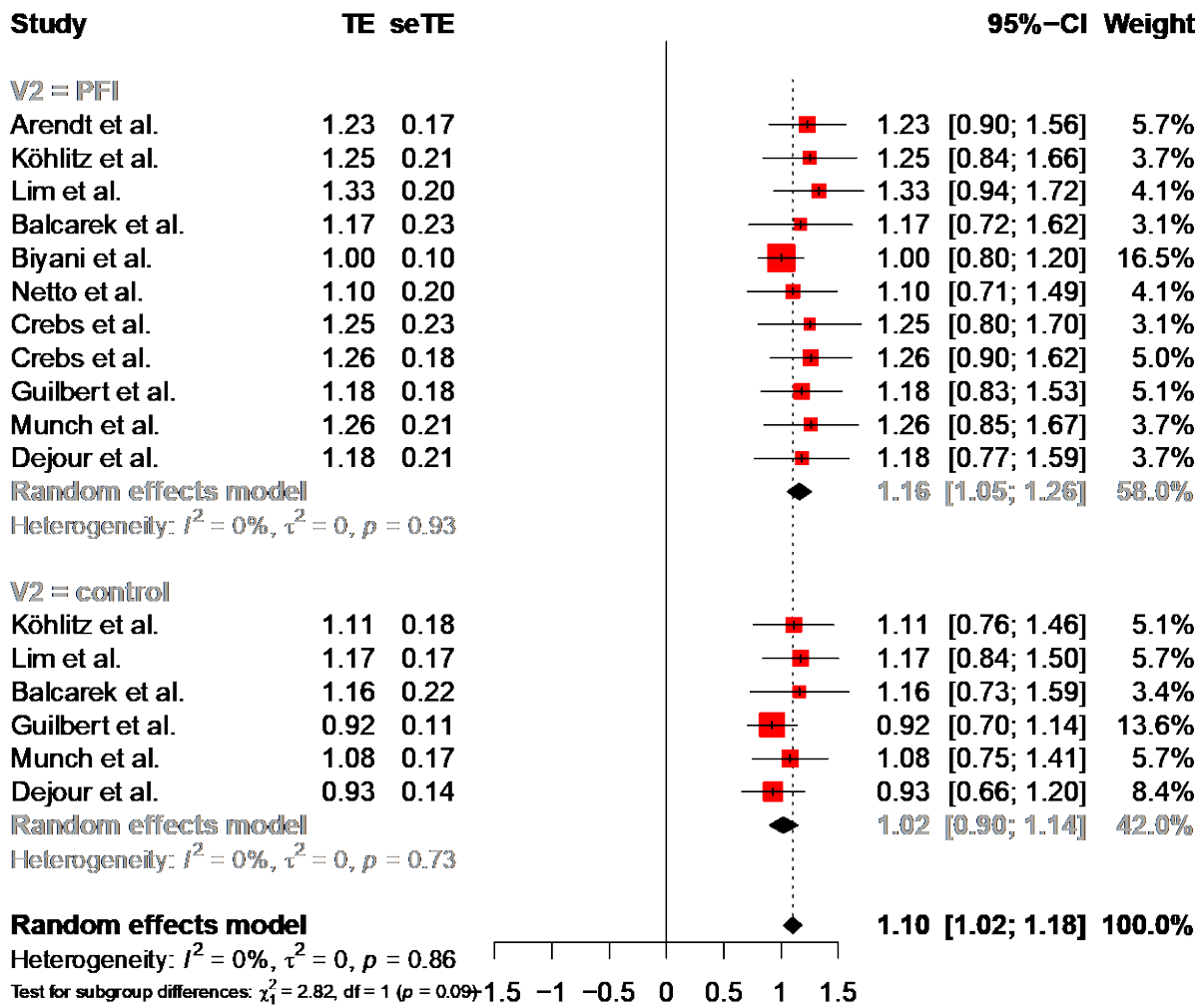
Appendix Figure A2. Patient Age, PFI vs. Control



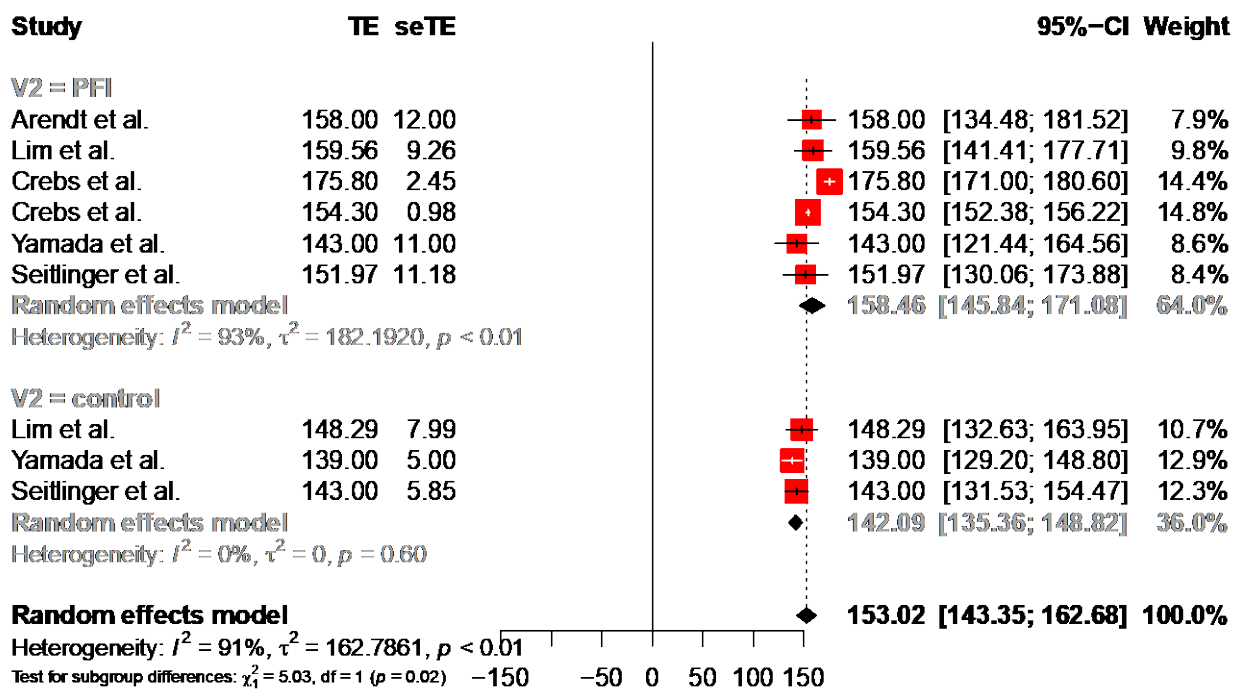
Appendix Figure A3. Patient BMI, PFI vs. Control



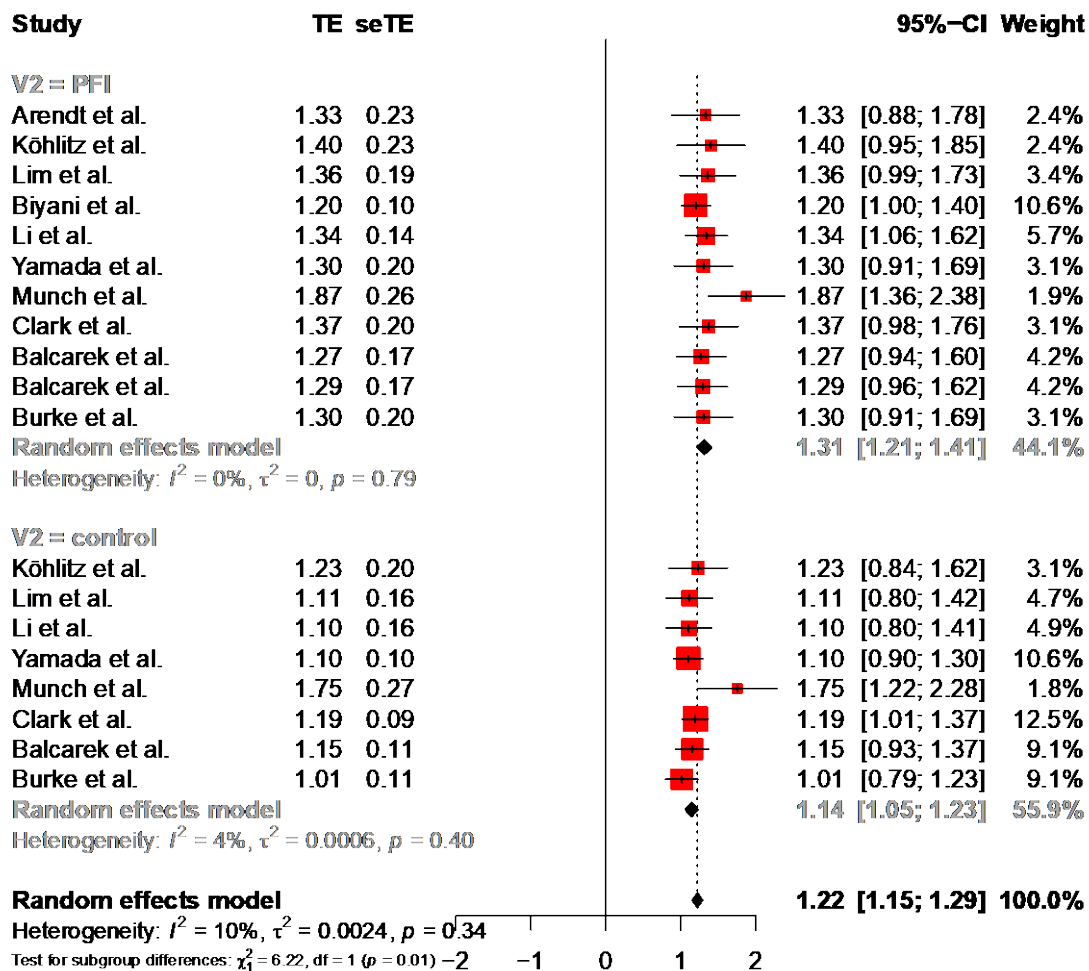
Appendix Figure A4. Patient Sex



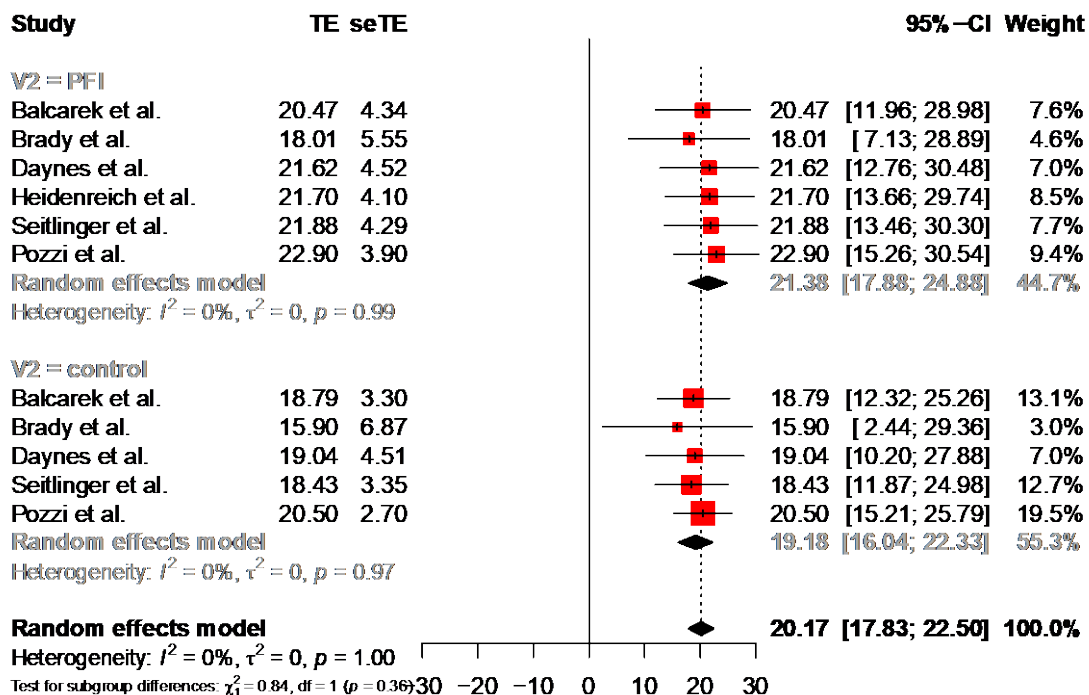
Appendix Figure A5. Caton-Deschamps on MRI, PFI vs. Control



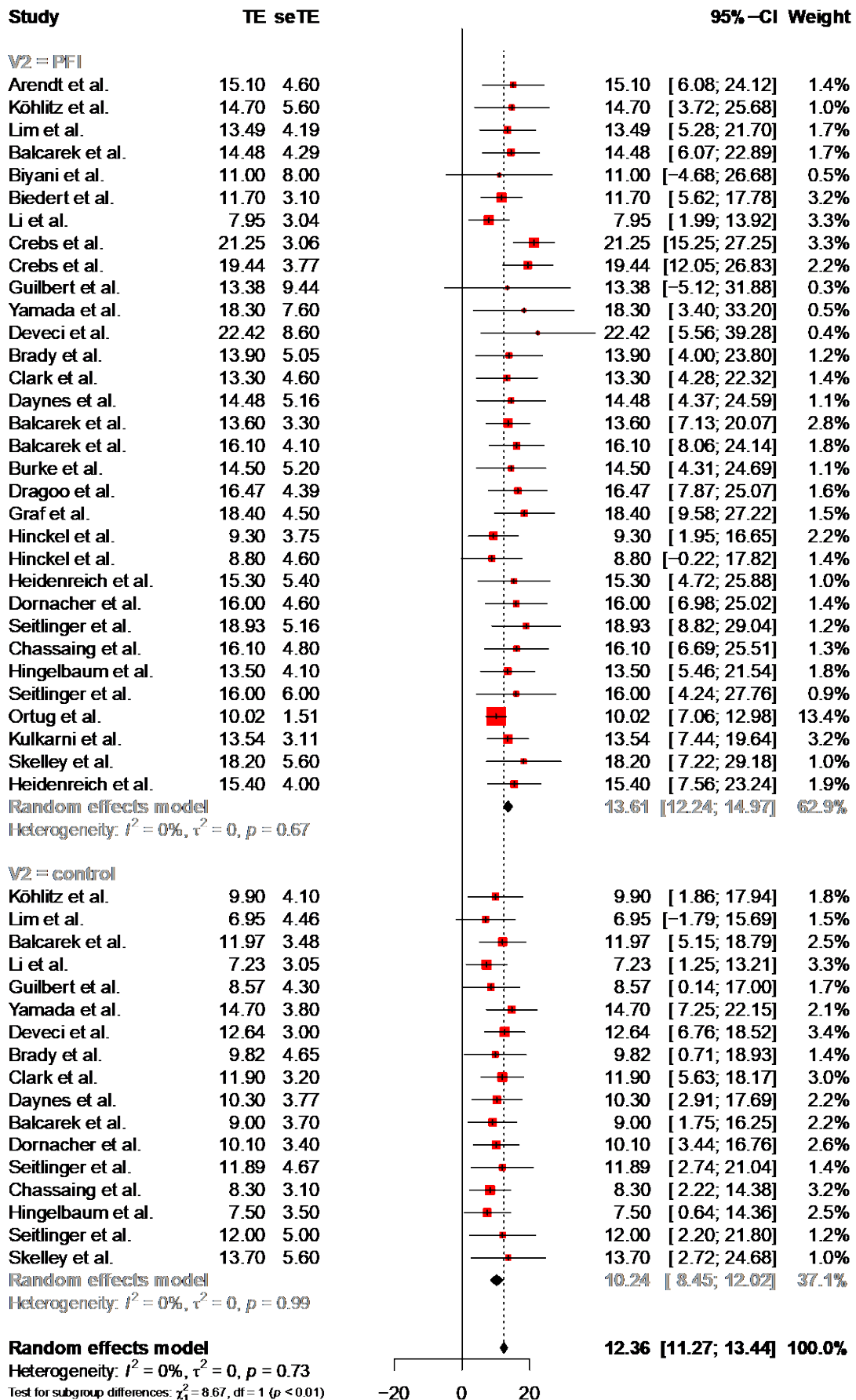
Appendix Figure A6. Femoral Sulcus Angle on MRI, PFI vs. Control



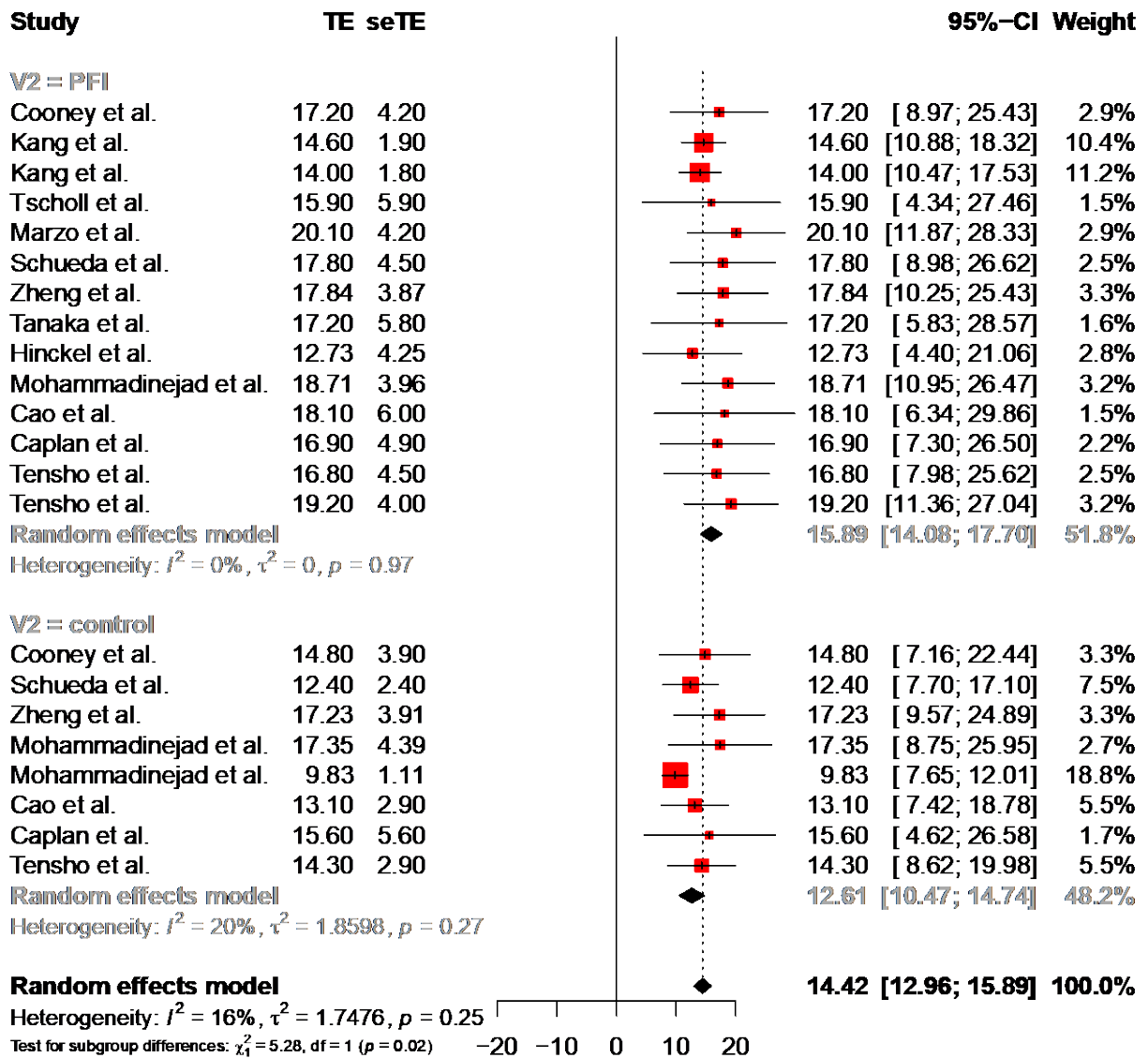
Appendix Figure A7. Insall-Salvati Ratio on MRI, PFI vs. Control



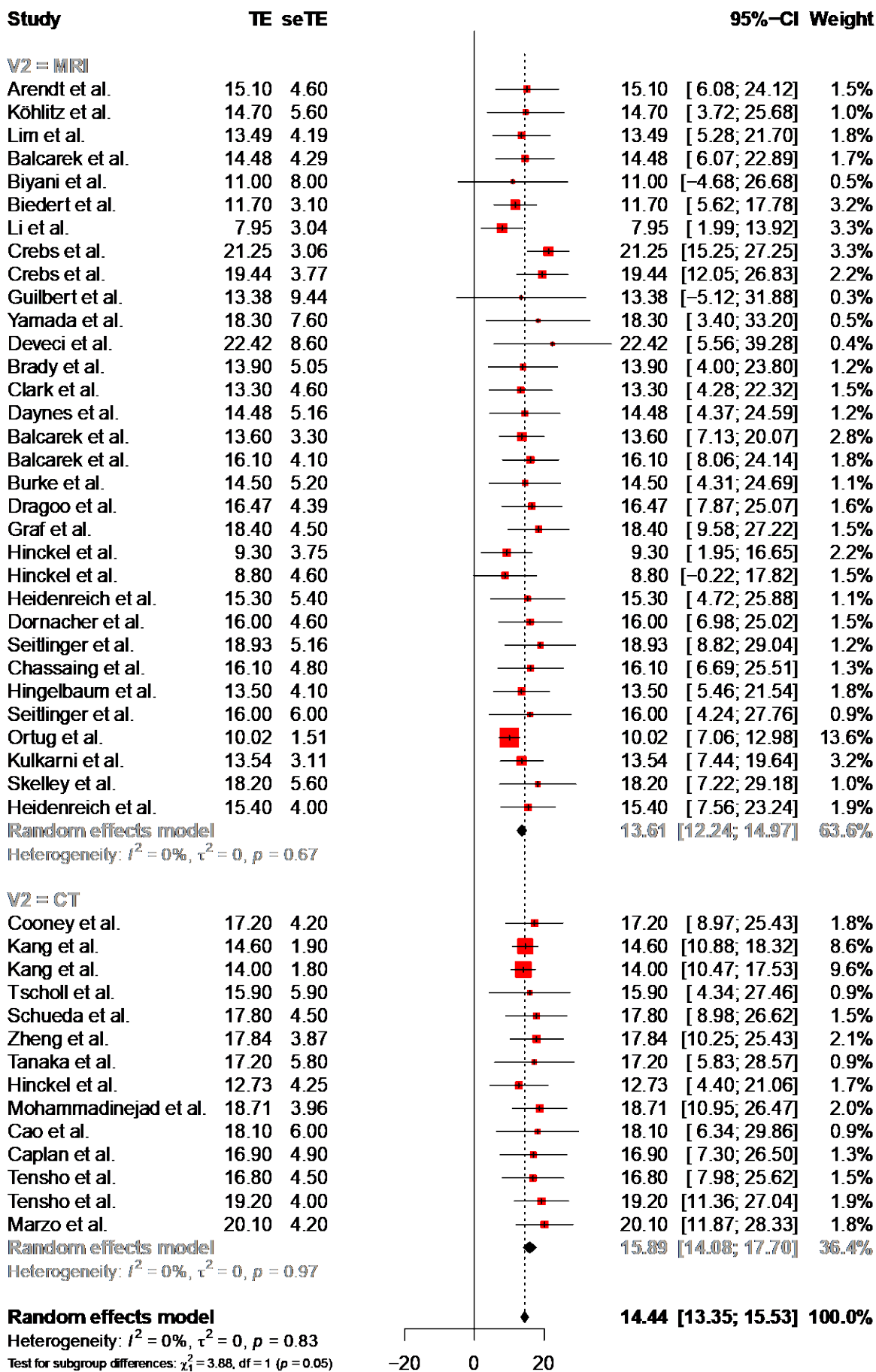
Appendix Figure A8. TT-PCL on MRI, PFI vs. Control



Appendix Figure A9. TT-TG on MRI, PFI vs. Control



Appendix Figure A10. TT-TG on CT, PFI vs. Control



Appendix Figure A11. TT-TG, MRI vs. CT