

Figure S1. Association between anterior chamber angle width and age Scatter plots between age and angle opening distance (AOD) / trabecular space iris area (TISA) measured at 500µm from the scleral spur in 394 healthy subjects <50 years (n=232) (A) or ≥ 50 years (n=162) (B) enrolled in Phase II.

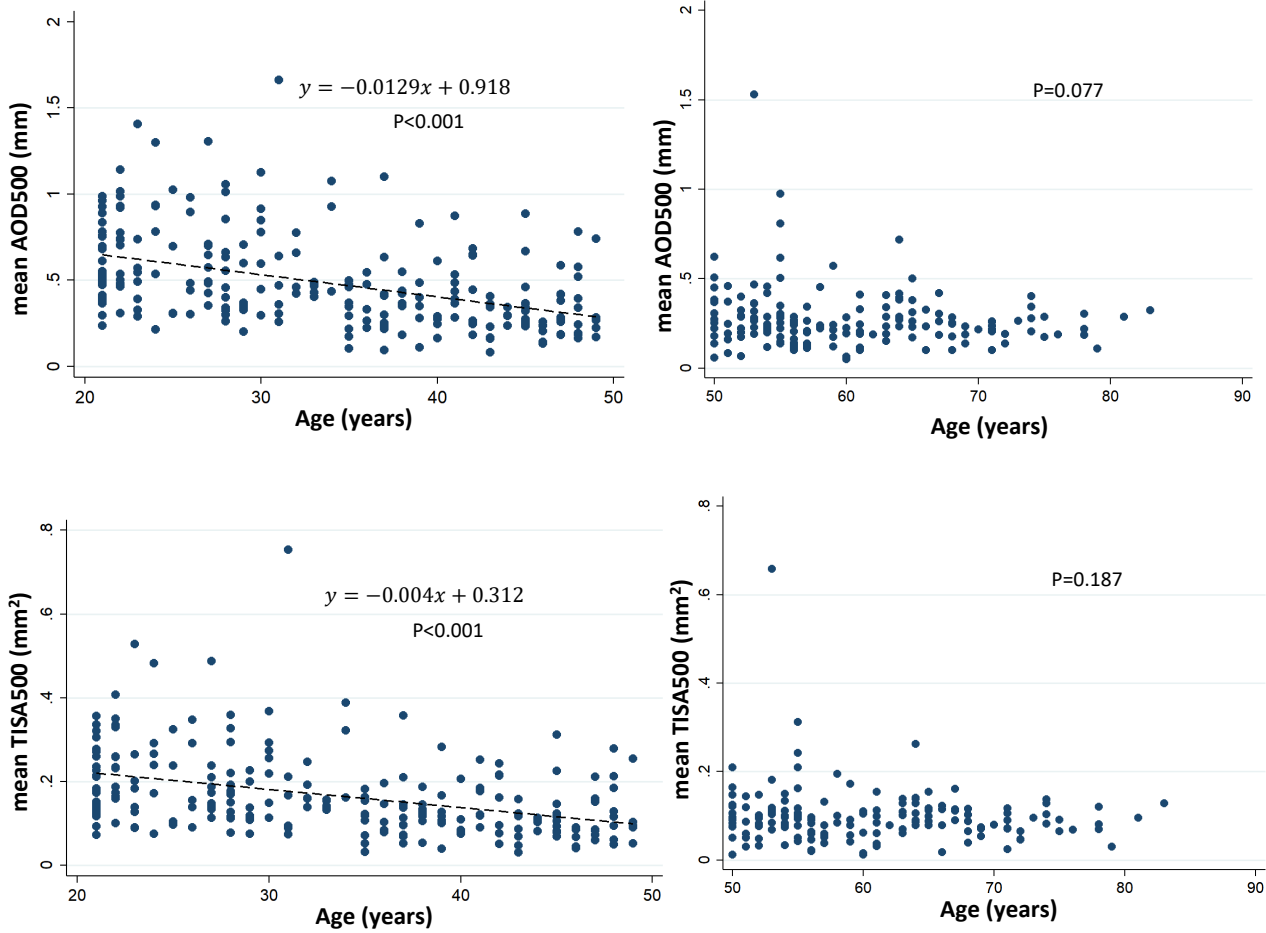
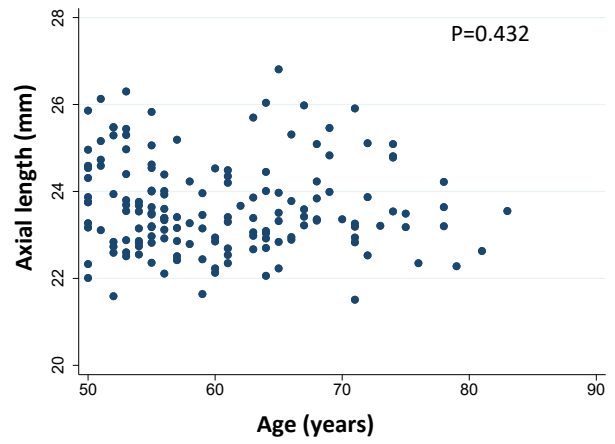
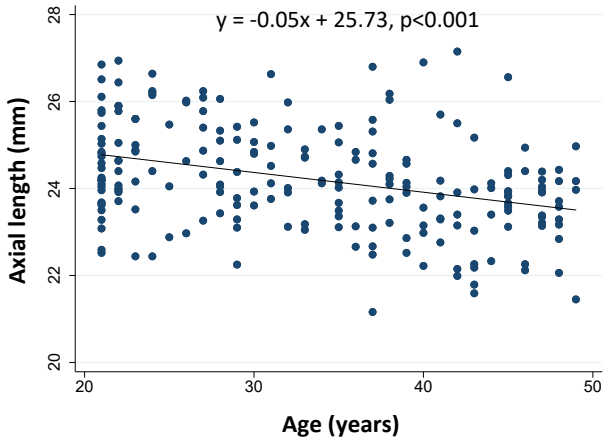


Figure S2 Associations of axial length (A), and anterior chamber depth (B) with age in 394 healthy subjects included in the normative dataset below 50 years (left panel, n=232) and at or above 50 years (right panel, n=162)

(A)



(B)

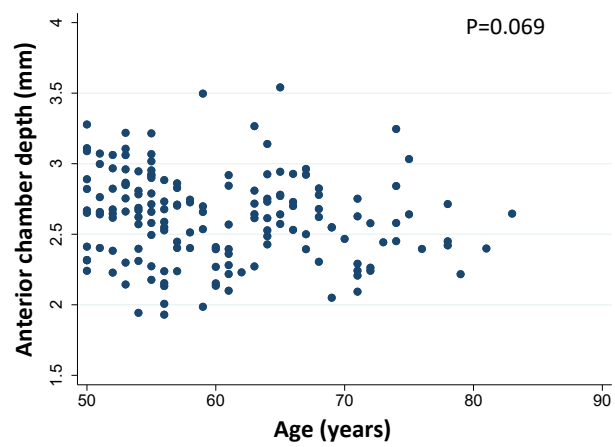
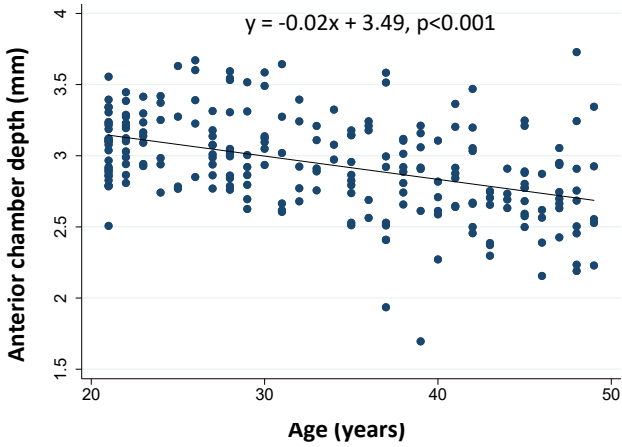


Figure S3. Box plots of the angle opening distance (AOD500) (A) and trabecular space iris area (TISA500) (B) measured at 500 μ m from the scleral spur by age and gender.

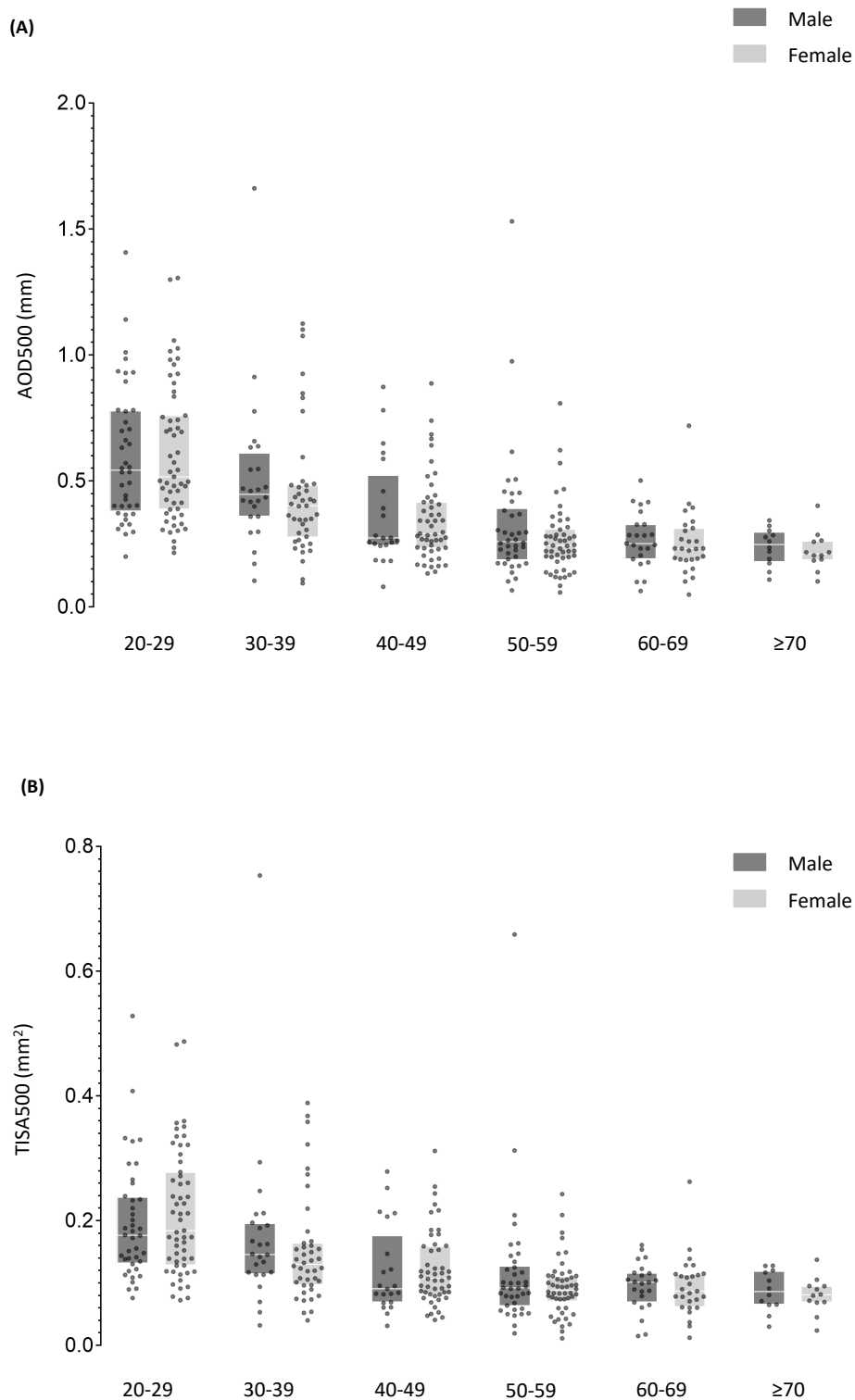
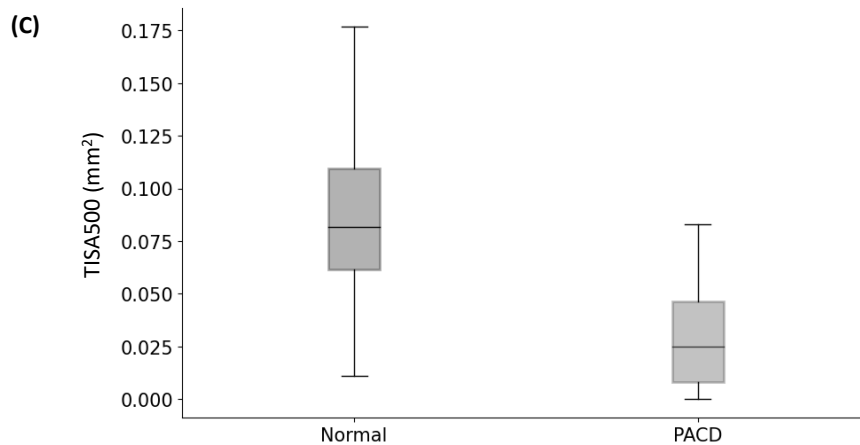
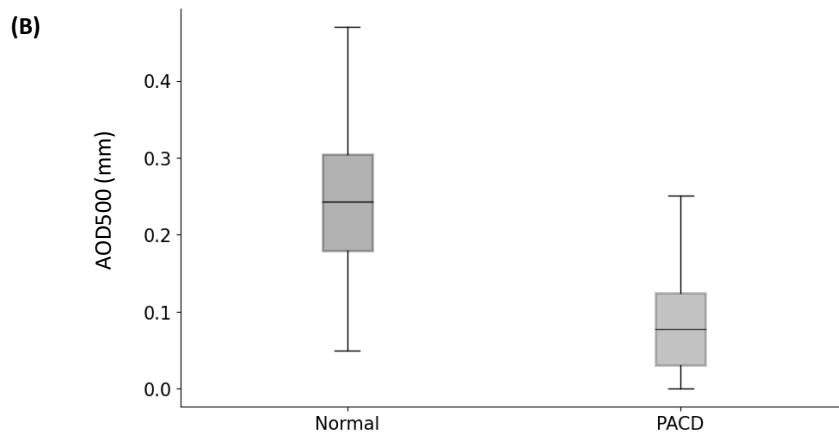
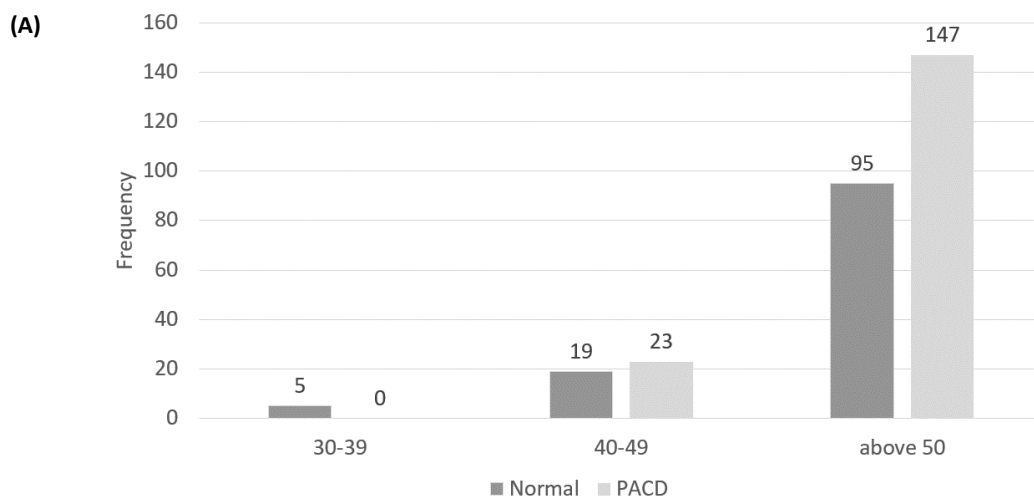


Figure S4 Distribution of age (A), AOD500 (B), and TISA500 (C) of the test dataset

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Figure S5 Diagnostic performance of narrow angle thresholds (the 5th and 10th percentiles of AOD500/TISA500) versus ITC500 for discrimination between gonioscopic open-angle and gonioscopic angle-closure in the age group 40-49 years. The area under the receiver operating characteristic curve (ROC) was compared using ROC regression analysis with adjustment for age and axial length.

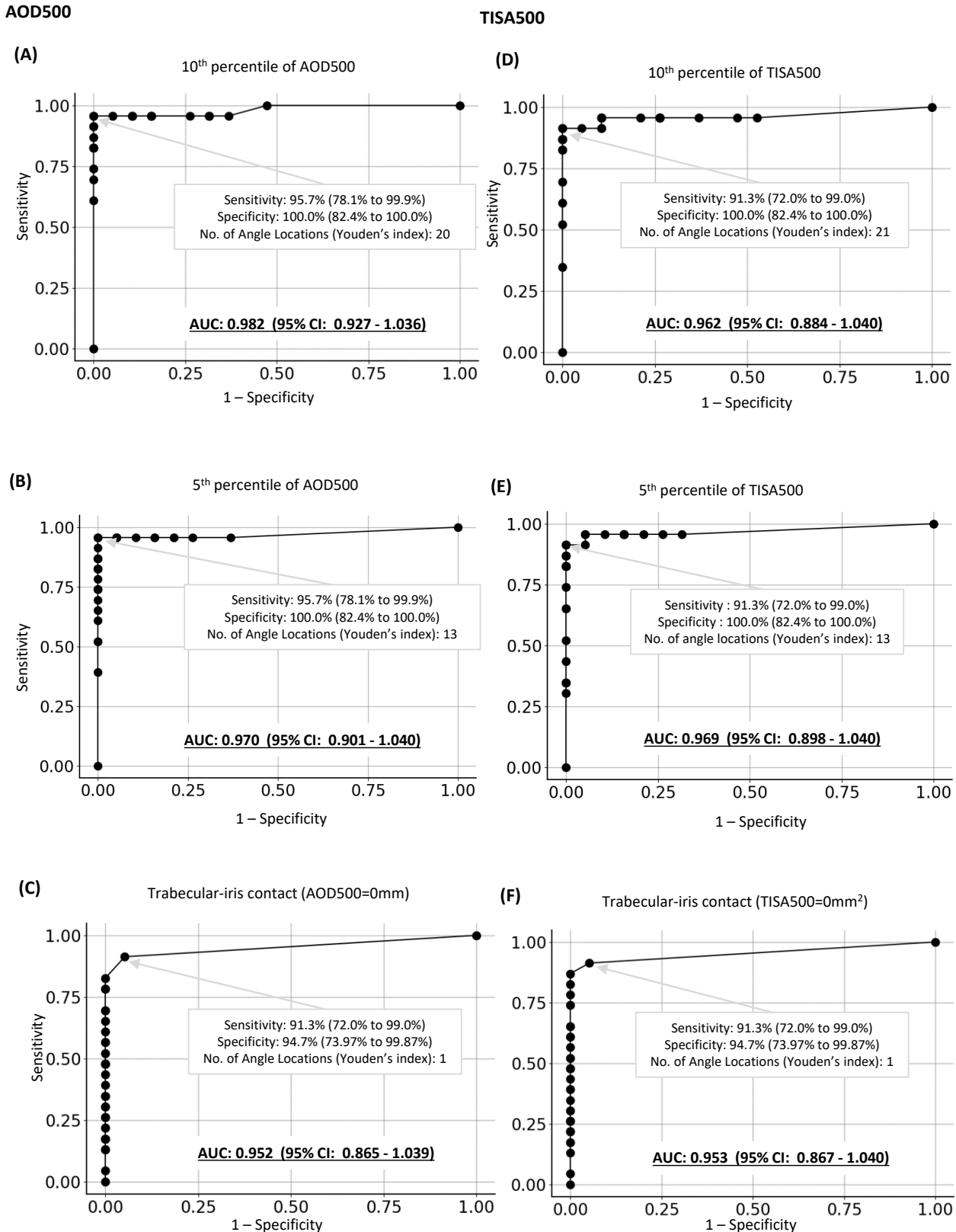
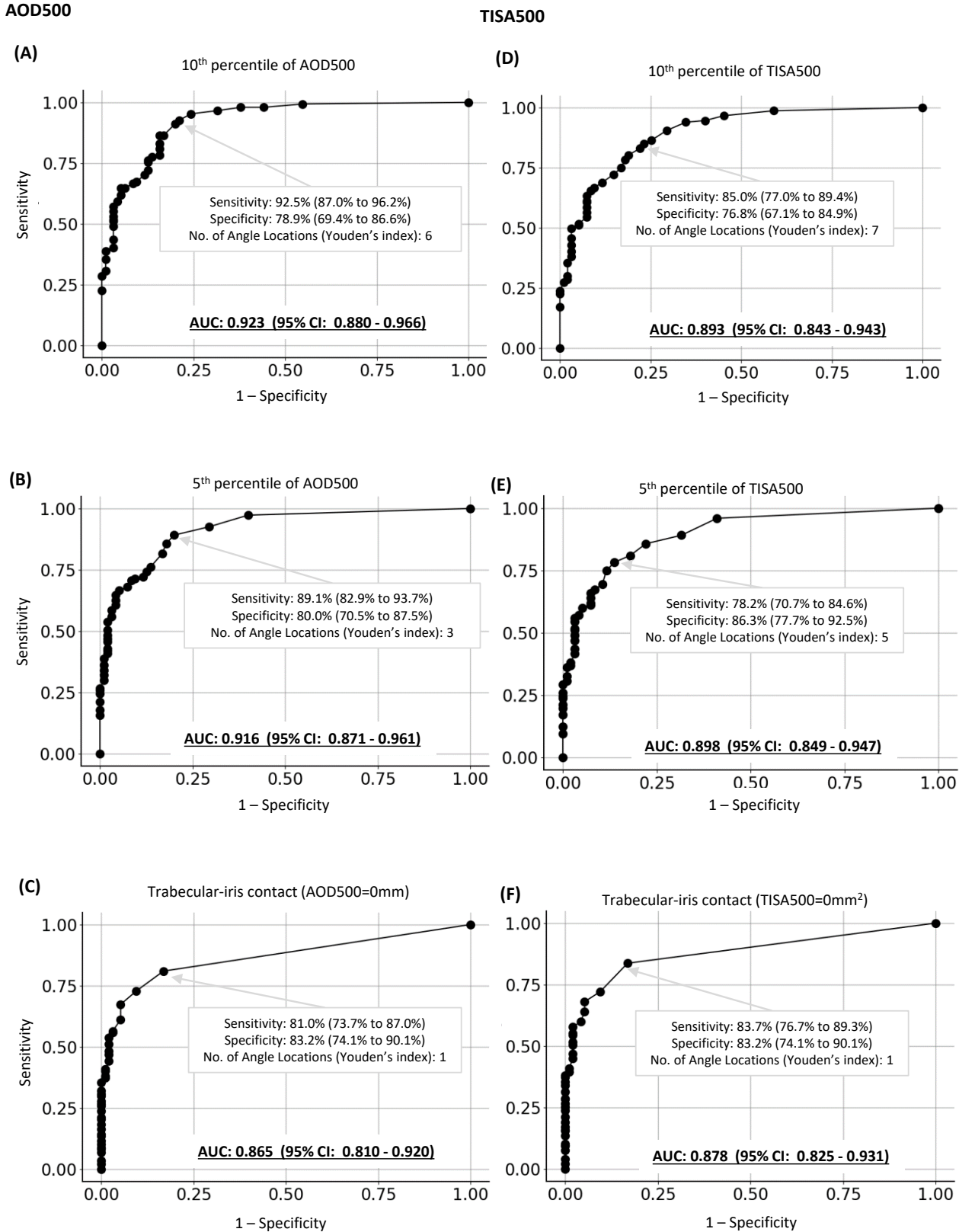
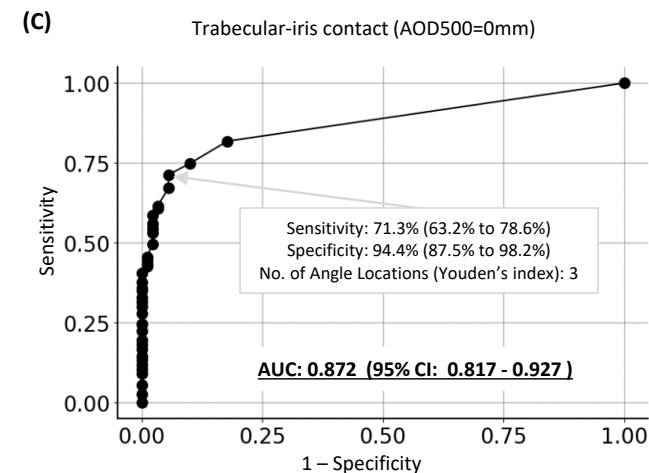
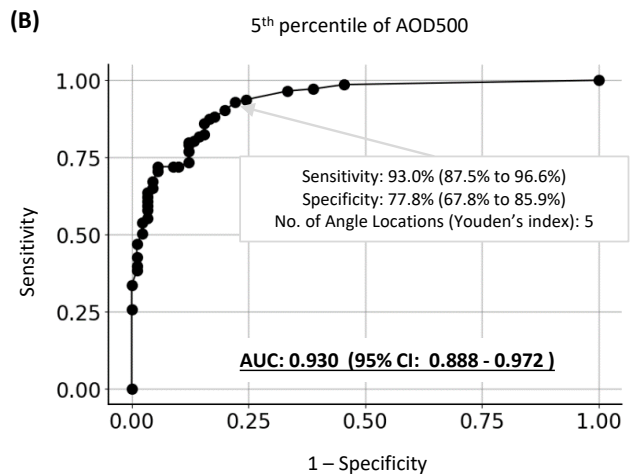
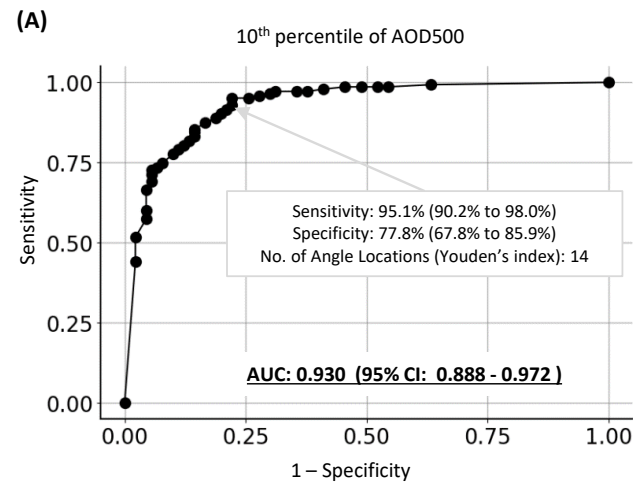


Figure S6 Diagnostic performance of narrow angle thresholds (the 5th and 10th percentiles of AOD500/TISA500) versus ITC500 for discrimination between gonioscopic open-angle and gonioscopic angle-closure in the age group ≥ 50 years. The area under the receiver operating characteristic curve (ROC) was compared using ROC regression analysis with adjustment for age and axial length.



area under the receiver operating characteristic curve (ROC) was compared using ROC regression analysis with adjustment for age and axial length.

AOD500



TISA500

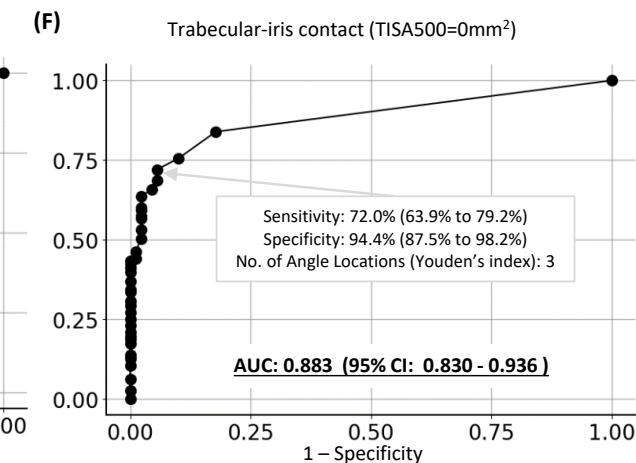
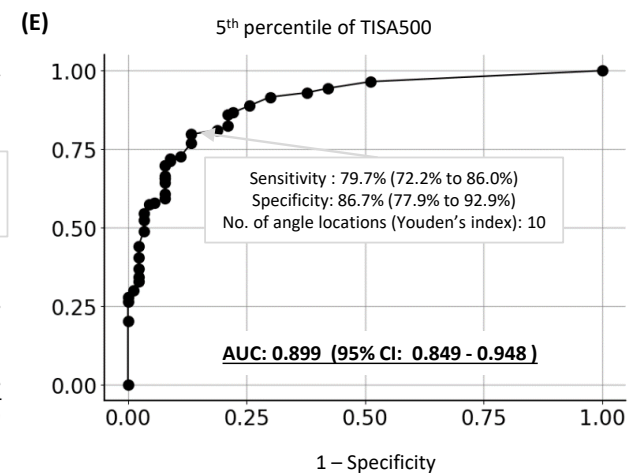
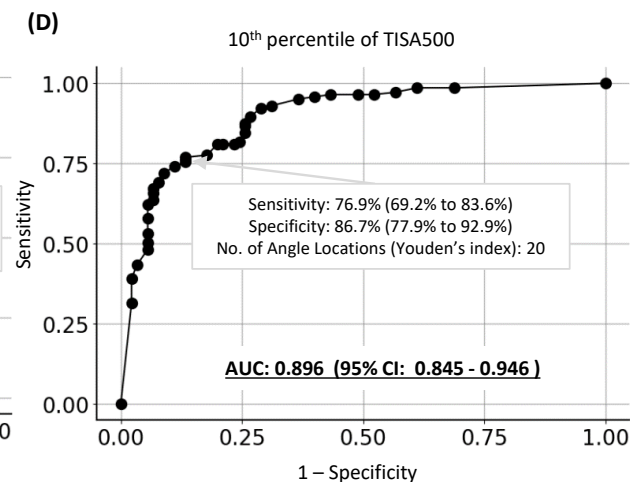


Figure S8 Diagnostic performance of narrow angle thresholds (the 5th and 10th percentiles of AOD500/TISA500) versus ITC500 for discrimination between gonioscopic open-angle and gonioscopic angle-closure in non-Asians. The area under the receiver operating characteristic curve (ROC) was compared using ROC regression analysis with adjustment for age and axial length.

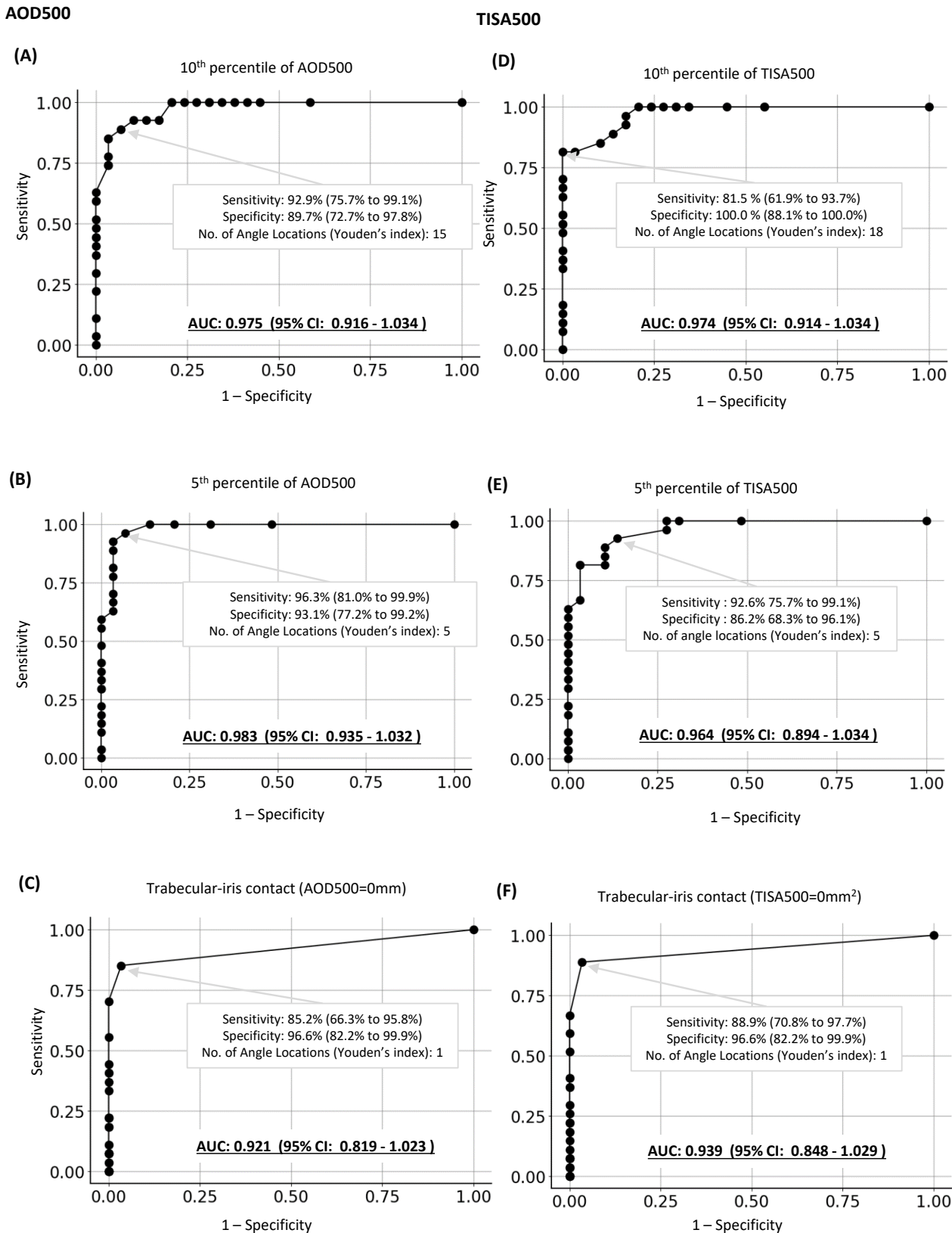


Table S1 Comparison of the angle opening distance (AOD500) (A) trabecular space iris area (TISA500) measured at 500µm from the scleral spur between gender in each age group.

AOD500			
	Male	Female	P
20-29	0.601 (0.515 to 0.688)	0.605 (0.532 to 0.679)	0.945
30-39	0.506 (0.377 to 0.636)	0.451 (0.371 to 0.531)	0.429
40-49	0.367 (0.270 to 0.464)	0.343 (0.286 to 0.391)	0.620
≥50	0.296 (0.248 to 0.343)	0.255 (0.228 to 0.282)	0.124
TISA500			
	Male	Female	P
20-29	0.197 (0.166 to 0.227)	0.212 (0.185 to 0.239)	0.449
30-39	0.175 (0.117 to 0.233)	0.153 (0.125 to 0.180)	0.412
40-49	0.119 (0.087 to 0.152)	0.122 (0.105 to 0.139)	0.852
≥50	0.105 (0.086 to 0.124)	0.091 (0.082 to 0.101)	0.182

Table S2 Demographics and anterior chamber angle with measurements of 394 healthy subjects in the normative dataset (mean \pm SD)

	All	20-29 years	30-39 years	40-49 years	≥ 50 years
No. of Subjects	394	95	66	71	162
Gender (M/F)	158/236	40/55	24/42	21/50	73/89
Age (years)	44.4 \pm 15.7	24.1 \pm 2.9	34.9 \pm 2.9	44.6 \pm 2.8	60.2 \pm 7.9
SE (D)	-1.09 \pm 2.28	-2.44 \pm 2.14	-1.93 \pm 2.07	-0.65 \pm 1.85	0.06 \pm 1.99
AL (mm)	23.98 \pm 1.17	24.63 \pm 1.14	24.25 \pm 1.07	23.64 \pm 1.15	23.66 \pm 1.06
ACD (mm)	2.81 \pm 0.36	2.93 \pm 0.36	2.93 \pm 0.36	2.75 \pm 0.31	2.62 \pm 0.31
AOD500 (mm)	0.400 \pm 0.271	0.604 \pm 0.295	0.471 \pm 0.29	0.350 \pm 0.198	0.273 \pm 0.181
TISA500 (mm²)	0.138 \pm 0.099	0.205 \pm 0.109	0.161 \pm 0.113	0.121 \pm 0.07	0.097 \pm 0.070

SE: spherical equivalent; AL: axial length; ACD; anterior chamber depth; PD: pupil diameter; AOD: angle opening distance; TISA: trabecular iris space area

Table S3 Demographics of 119 healthy subjects with gonioscopic open angle and 170 primary angle closure disease (PACD) patients with gonioscopic angle closure enrolled in Phase I (mean \pm SD)

	Healthy	PACD	P
No. of Subjects	119	170	-
Gender (M/F)	47/72	48/122	0.045
Age (years)	60.8 \pm 12.1	63.5 \pm 10.5	0.046
SE (D)	+0.6 \pm 1.7	+1.1 \pm 1.5	0.016
AL (mm)	23.7 \pm 1.0	22.8 \pm 0.9	<0.001
ACD (mm)	2.6 \pm 0.3	2.1 \pm 0.3	<0.001
PD (mm)	4.9 \pm 1.1	4.7 \pm 0.9	0.078
AOD500 (mm)	0.267 \pm 0.157	0.081 \pm 0.079	<0.001
TISA500 (mm²)	0.092 \pm 0.029	0.029 \pm 0.034	<0.001

SE: spherical equivalent; AL: axial length; ACD: anterior chamber depth; PD: pupil diameter; AOD: angle opening distance; TISA: trabecular iris space area; PACD: primary angle closure disease; PACS: primary angle closure suspect; PAC; primary angle closure; PACG: primary angle closure glaucoma

Table S4 Cross tabulation of the AS-OCT results by the results of gonioscopy for the three sets of AS-OCT diagnostic criteria

	AOD500=0mm (≥1 angle location)		Below the 5th percentile of AOD500 (≥4 angle locations)		Below the 10th percentile of AOD500 (≥9 locations)	
	Yes	No	Yes	No	Yes	No
Angle closure by gonioscopy	140	30	148	22	149	21
Open angle by gonioscopy	17	102	21	98	18	101
	TISA=0mm ² (≥1 angle location)		Below the 5th percentile of TISA500 (≥5 angle locations)		Below the 10th percentile of TISA500(≥7 locations)	
	Yes	No	Yes	No	Yes	No
Angle closure by gonioscopy	144	26	137	33	147	23
Open angle by gonioscopy	17	102	16	103	27	92