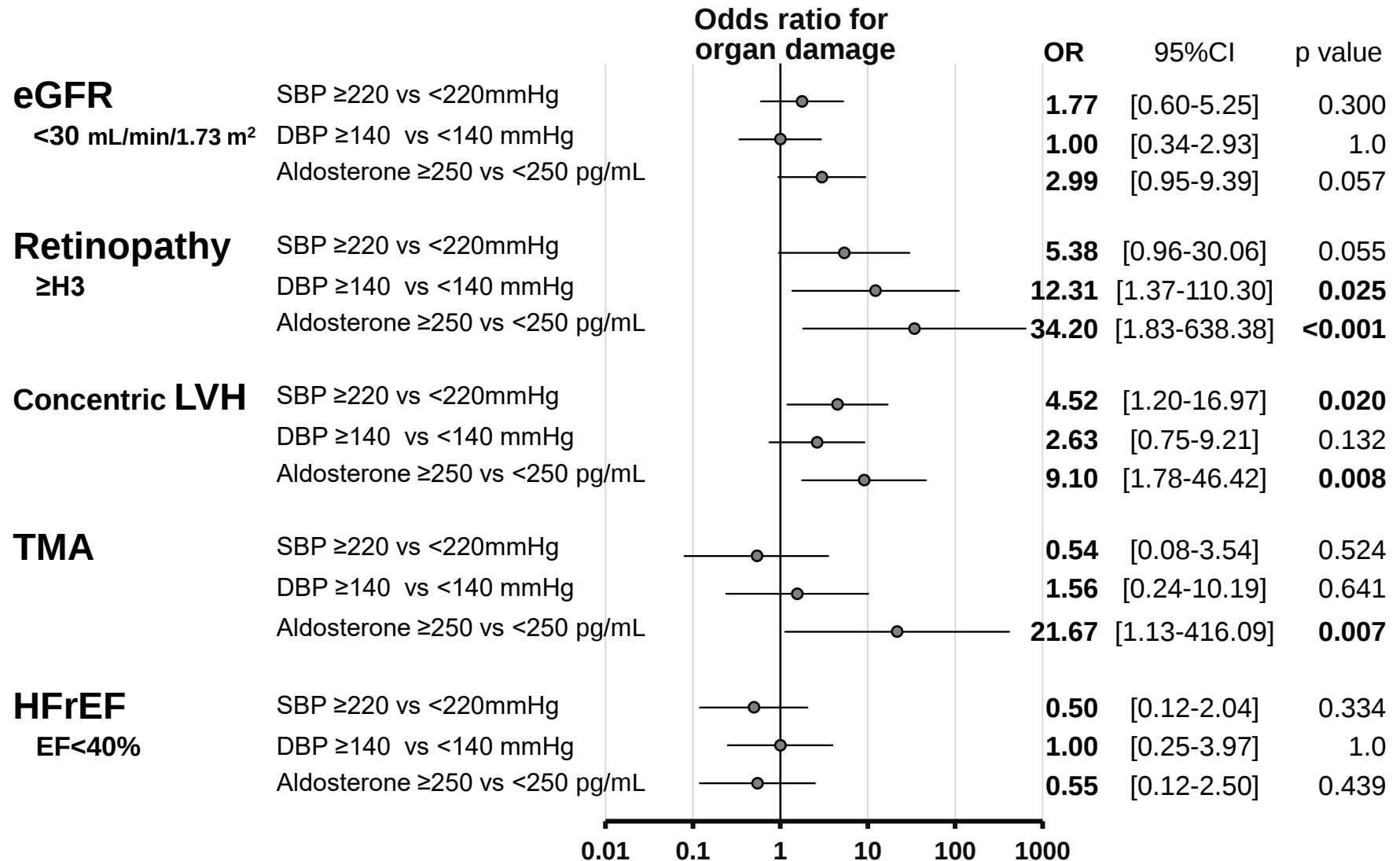


Supplementary table 1. Characteristics of patients with TMA among the group with a triad of kidney impairment, severe retinopathy and concentric LVH.

	Kidney impairment $\cap$ Retinopathy $\cap$ c-LVH			p value
	Total, n=22	TMA (-), n=17	TMA (+), n=5	
Age (y/o)	46.5 [39.0-49.0]	47.0 [36.0-49.0]	46.0 [46.0-49.9]	0.556
Male/female	14/8	10/7	4/1	0.613
Body mass index (kg/m²)	25.8 [22.9-30.5]	28.3 [22.9-35.8]	24.6 [22.9-24.8]	0.256
Hypertension history (years)	1.5 [0.0-5.0]	2.0 [0.0-8.0]	1.0 [0.1-2.0]	0.763
Diabetes, n (%)	1 (4.5%)	1 (5.9%)	0 (0%)	1.0
Smoking, n (%)	14 (63.6%)	9 (52.9%)	5 (100.0%)	0.115
Smoking history (years)	12.0 [0.0-25.8]	5.0 [0-20.0]	26.0 [25.0-30.2]	0.013
Brinkman Index (n/day x years)	305 [0-460]	50 [0-400]	500 [480-520]	0.018
Systolic BP (mmHg)	226 [203-236]	228 [219-237]	211 [200-228]	0.610
Diastolic BP (mmHg)	147 [134-160]	151 [135-161]	143 [123-153]	0.610
eGFR (mL/min/1.73 m²)	12.5 [7.0-16.5]	12.0 [7.0-18.3]	13.0 [7.0-15.3]	0.813
Aldosterone (pg/mL)	321 [218-553]	321 [203-509]	321 [298-591]	0.611
Hemoglobin A1c (%)	5.1 [4.4-5.6]	5.1 [4.7-5.6]	4.2 [3.8-5.0]	0.223
LDL cholesterol (mg/dL)	119 [102-133]	113 [103-136]	124 [109-141]	0.505
HDL cholesterol (mg/dL)	46 [36-59]	47 [36-62]	43 [36-46]	0.480
Hematocrit (%)	31.6 [25.5-36.1]	33.2 [27.9-37.2]	25.5 [24.2-29.8]	0.160
Platelet count (x10⁴/mm³)	17.6 [11.9-22.4]	20.8 [15.9-23.0]	11.8 [8.3-12.1]	0.008
LDH (U/L)	529 [423-737]	456 [419-717]	722 [613-1135]	0.196

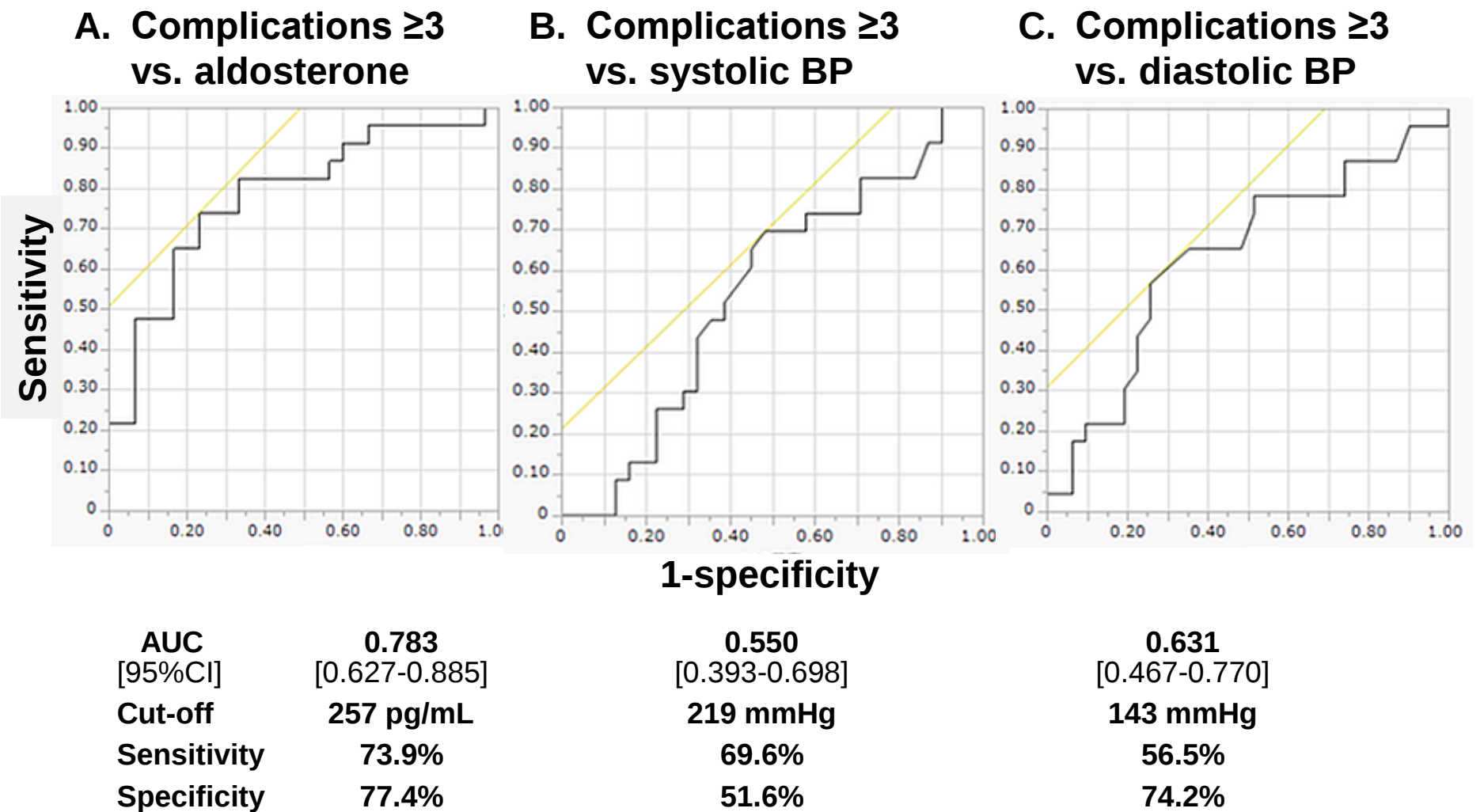
C-LVH; concentric left ventricular hypertrophy, TMA; thrombotic microangiopathy, BP; blood pressure, LDH; lactate dehydrogenase.

Supplementary fig. 1. Impact of blood pressure and aldosterone on the development of various organ damage.

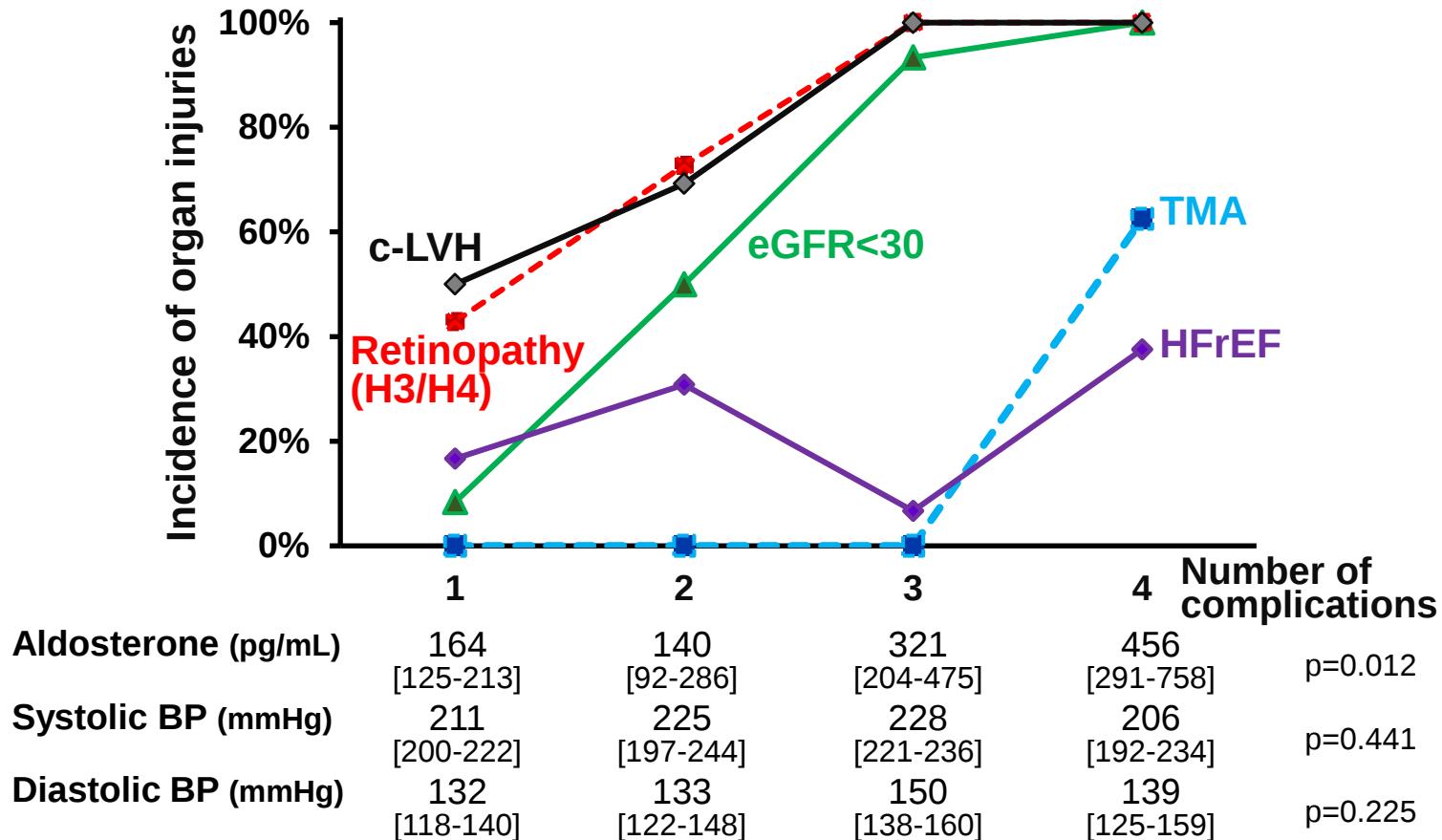


LVH; left ventricular hypertrophy, TMA; thrombotic microangiopathy, HFrEF; heart failure with reduced ejection fraction.

Supplementary fig. 2. ROC curves determining the cut-off values for complications $\geq$ 3 vs aldosterone, systolic BP and diastolic BP.



Supplementary fig. 3. Association between the incidence of organ injuries and the number of complications.



Concentric left ventricular hypertrophy (c-LVH) and severe retinopathy (H3/H4) were more frequently observed in patients with a single or two complications, in whom plasma aldosterone levels were 164 [IQR: 125-213] and 140 [IQR: 92-286] pg/mL, respectively. The incidence of eGFR <30 mL/min/1.73 m² rose with the increase in the number of complications. Thrombotic microangiopathy (TMA) developed exclusively in patients with 4 complications whose aldosterone levels were markedly elevated (456 [IQR: 291-758] pg/mL). HFrEF; heart failure with reduced ejection fraction.