Supplemental Table I. Intra-class correlation coefficient for intra- and inter-observer reliability.

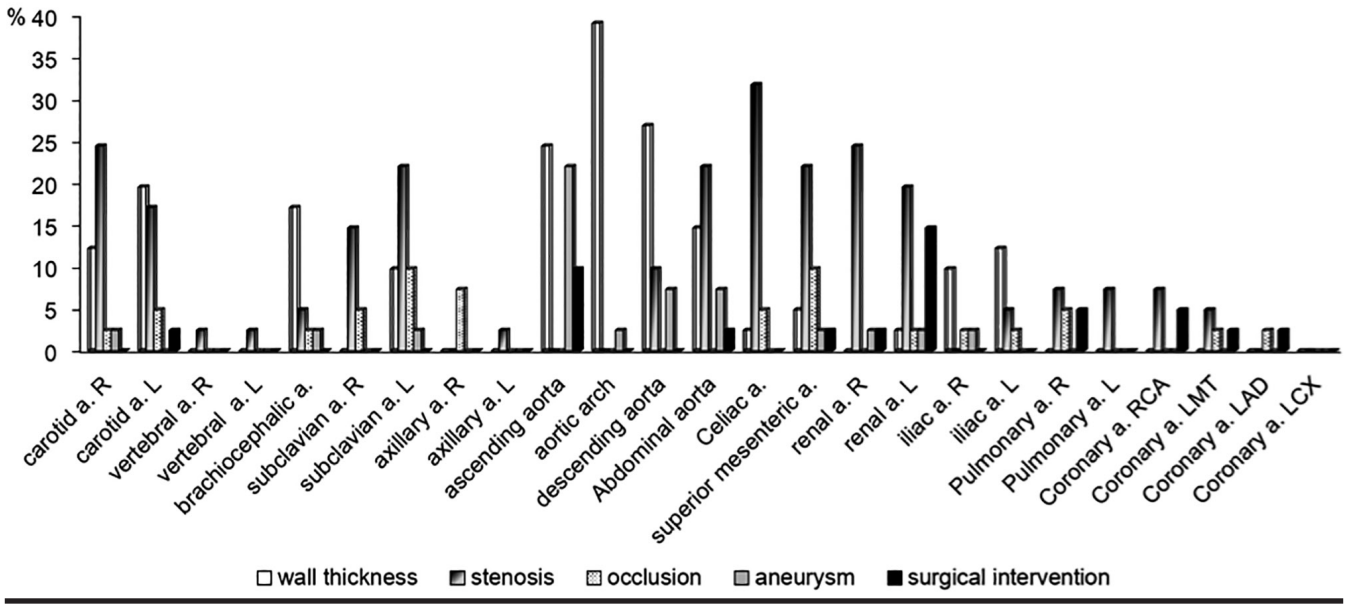
	Intraclass correlation coeficients	95% confidence interval	
Inter-observer reliability	0.918	0.835	0.961
Intra-observer reliability in a radiologist	0.937	0.829	0.978
Intra-observer reliability in a rheumatologist	0.912	0.765	0.969

Intra- and inter-observer reliability of imaging scores were evaluated by calculating intraclass correlation coefficients.

Supplemental Table II. Clinical and demographic features in patients with Takayasu arteritis and Giant cell arteritis.

Variable at baseline Total 96	TAK, n=41	GCA, n=55	*p* value
Female, no (%)	30 (73)	44 (80)	0.43
Age at onset, yrs, mean (±SD)	29.5 (11.3)	64.7 (12.1)	<0.001
Age at diagnosis, yrs, mean (±SD)	32.4 (12.9)	66.4 (7.2)	<0.001
Delay from onset to diagnosis, mos, median (IQR)	31.5 (36.2)	3 (5.8)	<0.001
Duration of follow up, mos, median (IQR)	100.4 (118.2)	36.5 (51.5)	<0.001
CRP at diagnosis, mg/l, median (IQR)	30 (49)	81 (70)	<0.001
ESR at diagnosis, mm/h, median (IQR)	34.5 (64)	96 (45)	<0.001
CRP at present, mg/l, median (IQR)	5.5 (18)	5 (16.3)	0.56
ESR at present, mm/h, median (IQR)	16 (21)	16 (24)	0.62
ACR criteria fulfillment at diagnosis, no (%)	23 (56)	35 (64)	0.46
Constitutional symptom at diagnosis, no (%)	28 (68)	38 (69)	0.83
Arthralgia, myalgia at diagnosis, no (%)	13 (32)	33 (60)	0.008
Limb claudication at diagnosis, no (%)	12 (29)	16 (29)	0.89
Pulse loss at diagnosis, no (%)	13 (32)	11 (20)	0.14
Blood pressure inequality at diagnosis, no (%)	14 (34)	9 (16)	0.028
Bruit at diagnosis, no (%)	16 (39)	10 (18)	0.013
Headache at diagnosis, no (%)	7 (17)	32 (58)	<0.001
Temporal artery abnormality at diagnosis, no (%)	0	21 (38)	<0.001
Polymyalgia rheumatica at diagnosis, no (%)	1 (2)	27 (49)	<0.001
Abnormal temporal artery biopsy at diagnosis, no (%)	0	11 (20)	0.003
Jaw claudication at diagnosis, no (%)	1 (2)	17 (31)	0.001

Normally distributed continuous data were summarized with means and SD and were analyzed using parametric tests (Student's t-test). Non-normally distributed data were summarized with medians and interquartile ranges and were analyzed using nonparametric tests (Mann-Whitney U test). Categorical data were summarized with percentages and were analyzed using a chi-square test, Fisher's exact test. P values less than 0.05 were considered significant.
IQR: interquartile range; SD: standard deviation; CRP: C reactive protein; ESR: erythrocyte sedimentation rate.



Supplemental Fig. 1. Frequency involved arterial region in 25 vessels in Takayasu arteritis
The following arterial regions were evaluated in 25 subjects; carotid artery, vertebral artery, brachiocephalic artery, subclavian artery, axillary artery, ascending aorta, aortic arch, descending aorta, abdominal aorta, celiac artery, superior mesenteric artery, renal artery, iliac artery, pulmonary artery bilaterally and coronary artery including right coronary artery, left anterior descending coronary artery, left circumflex coronary artery and left main trunk.

Supplemental Table III. Treatment features in patients with Takayasu arteritis and Giant cell arteritis.

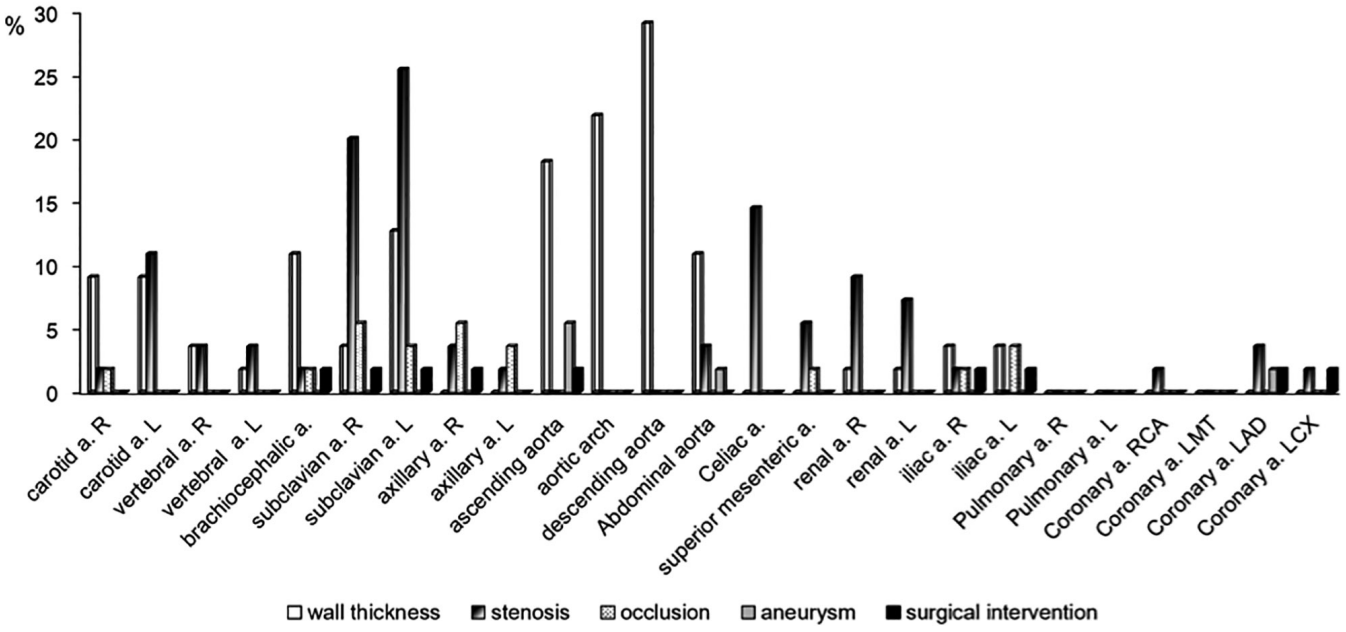
Variable at baseline Total 96	TAK, n=41	GCA, n=55	*p* value
Glucocorticoids ever, no (%)	32 (78)	52 (95)	0.016
Glucocorticoids discontinuation, no (%)	6 (19)	14 (25)	0.32
Glucocorticoids pulse, no (%)	9 (22)	11 (20)	0.068
Initial dose of oral Glucocorticoids, mg/day, median (IQR)	30 (20)	60 (24)	<0.001
Cumulative dose of Glucocorticoids, mg, median (IQR)	8137 (15401)	7280 (8360)	0.86
Cyclophosphamide, no (%)	13 (32)	13 (24)	0.264
Azathioprine, no (%)	22 (54)	20 (36)	0.071
Mycophenolate mofetil, no (%)	13 (32)	11 (20)	0.166
Methotrexate, no (%)	22 (54)	20 (36)	0.071
Calcineurin inhibitors (%)	5 (12)	0	0.012
Hydroxychloroquine (%)	0	2 (4)	0.50
Leflunomide (%)	0	1 (2)	1
Any DMARDs, no (%)	32 (78)	36 (65)	0.121
Biologics, no (%)	14 (34)	6 (11)	0.004
Antiplatelet drug, no (%)	16 (39)	31 (56)	0.115
Intervention, no (%)	12 (29)	6 (11)	0.019

Non-normally distributed data were summarized with medians and interquartile ranges and were analyzed using nonparametric tests (Mann-Whitney U test). Categorical data were summarized with percentages and were analyzed using a chi-square test, Fisher's exact test. P values less than 0.05 were considered significant.
Biologics included infliximab, adalimumab, etanercept, certolizumab pegol, tocilizumab and rituximab. Intervention included angioplasty, stent, bypass surgery, heart valve replacement, heart transplant and pneumonectomy. IQR: interquartile range.

Supplemental Table IV. Difference of CARDS between CT and MRA.

Variable at baseline	CT, n=58	MRI, n=38	*p* value
CARDS, median (IQR)	1.2 (4.8)	2.4 (3.9)	0.127

Non-normally distributed data were summarized with medians and interquartile ranges and were analyzed using nonparametric tests (Mann-Whitney U test). P values less than 0.05 were considered significant.
CARDS: Combined Arteritis Damage Score; IQR: interquartile ranges; CT: computed tomography; MRI: magnetic resonance imaging.



Supplemental Fig. 2. Frequency involved arterial region in 25 vessels in Giant cell arteritis.