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**AB0596 ASSESSMENT OF DAMAGE IN TAKAYASU ARTERITIS PATIENTS WITH VASCULITIS DAMAGE INDEX (VDI) AND TAKAYASU ARTERITIS DAMAGE SCORE (TADS)**

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**Background:** Evaluation of damage in patients with takayasu arteritis is important because of the mortality and morbidity burden caused by the disease. Damage can be associated with treatment or with the disease itself (1).

**Objectives:** In this study we aimed to evaluate the damage in our Takayasu arteritis patients by using VDI and TADS scores.

**Methods:** Takayasu arteritis patients fulfilling the ACR 1990 criteria and had >3 months follow-up were enrolled in this study. TADS and VDI scores calculated at the end of the follow-up evaluated and compared.

**Results:** 114 patients (F/M: 101/13) were included in the study. The mean age at diagnosis, median symptom duration at baseline visit and mean follow-up duration were 35.3±13.3 years, 12 (0-360) months and 76.9 ± 51.4 months respectively. Mean VDI score was 5.1±2.5 and mean TADS score was 7.9±3.5. At least one disease-related damage item was present in all of the patients for both VDI and TADS meanwhile ≥1 treatment-related damage item was established in 69 (66.1%) patients with VDI and 46(40.7%) patients with TADS scoring system. Median treatment related-item number was 1 (0-6) in VDI and 0(0-3) in TADS. This difference may be due to the lack of disease-related parameters such as diabetes, cataract, osteoporosis, avascular necrosis in TADS. The median number of disease-related items was higher in TADS scoring (4 items vs 8 items). TADS scores include more detailed and higher number of items under vascular intervention and pulse loss categories. Also bruit and systolic hypertension data is only available in TADS(Table1).

There was no significant difference between patients with relapsing disease and patients with no relapses for both TADS and VDI scores. There was a weak correlation between VDI and cumulative steroid dose ( $p=0.002$ ,  $r=0.32$ ), and VDI-disease duration ( $p=0.001$ ,  $r=0.29$ ). A weak correlation between TADS and disease duration was established( $p=0.04$   $r=0.19$ ). No correlation was detected for TADS and cumulative steroid dose.

**Conclusion:** In Takayasu arteritis, detecting the disease-related and treatment-related part of damage must be considered while monitoring the disease. VDI seems to be predominant evaluating the treatment-related damage. TADS provides more detailed information on disease-related damage.

## REFERENCES

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**Table 1.** Comparison of VDI and TADS scores in our Takayasu patients

Categories	VDI n (%)	TADS n (%)
Musculoskeletal	23 (20)	-
Osteoporosis	15 (13.6)	-
Avascular necrosis	6 (5.4)	-
Skin	14 (12.6)	-
Ocular	37 (33.3)	8 (7.1)
Cataract	11 (9.9)	-
Retinal change	19 (17.1)	-
Visual impairment/diplopia	14 (12.6)	8 (7.1)
ENT	1 (0.8)	-
Pulmonary	20 (18)	16 (14.2)
Cardiovascular	79 (71.2)	114 (100)
Bruit	-	92 (81.4)
Pulse loss	-	79 (69.9)
Valvular disease	44 (39.6)	-
Ischemic cardiac pain	-	18 (15.9)
Myocardial infarction	8 (7.2)	-
Aortic Incompetence	-	27 (23.9)
Diastolic BP > 95	46 (40.7)	-

Peripheral vascular disease	110 (99.1)	-
Absent pulses in one limb	78 (70.3)	-
Claudication > 3 months	89 (80.2)	-
Major/minor tissue loss	1 (0.9)	-
Venous thrombosis	1 (0.9)	-
Gastrointestinal	3 (2.7)	-
Renal	4 (3.6)	47 (41.6)
Diastolic BP > 95	-	46 (40.7)
Neuropsychiatric	18 (16.2)	14 (12.4)
Vascular Intervention	-	45 (39.6)
Other	13 (11.7)	14 (12.4)
Malignancy	2 (1.8)	2 (1.8)
Infertility	1 (0.9)	1 (0.9)
Diabetes	8 (8.1)	-

VDI: Vasculitis Damage Index

TADS: Takayasu Arteritis Damage Score

ENT: Eye-Nose-Throat

'-' this item is not included in this scoring system

'—' this item is categorized in another category in the scoring system mentioned

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**AB0597 CAN A ONE-HOUR QUANTITATIVE ASSESSMENT OF FDG-PET-CT (MODIFIED-PETVAS) BE USEFUL IN TAKAYASU'S ARTERITIS?**

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**Background:** FDG-PET-CT is suggested as an imaging method for the assessment of disease activity in Takayasu's arteritis (TAK). Recently PETVAS, a quantitative score assessed at 2-hours is suggested as an imaging tool for TAK (1). However, most studies with FDG-PET-CT in the literature is performed at one-hour, similar to suggested as the minimum time in recent EULAR recommendations for the use of imaging in large-vessel vasculitis (2).

**Objectives:** In this study, we aimed to evaluate the value of a modified PET Vascular Activity Score (PETVAS) (performed at one-hour) during the initial diagnosis and follow-up of TAK patients.

**Methods:** Patients who are diagnosed with Takayasu's arteritis and underwent FDG-PET-CT imaging during their follow-up were evaluated in this study retrospectively. FDG-PET-CT imaging was performed at the first hour of FDG uptake. Demographic and clinical characteristics of the patients were recorded from patients' charts. Physician's Global Assessment (PGA) was used to determine clinical activity. In the modified PETVAS scoring system, 9 arterial areas (Ascending Aorta, Aortic Arch, Descending Thoracic Aorta, Abdominal Aorta, Right Carotid Artery, Left Carotid Artery, Innominate Artery, Right Subclavian Artery, Left Subclavian Artery) were scored between 0 and 3 according to the FDG uptake, as originally suggested. The degree of arterial involvement was scored as 0= no uptake, 1=less than liver involvement, 2=equal involvement to liver, 3=greater than liver involvement (maximum score = 27). The visual analysis using the liver FDG uptake as the reference was also assessed and compared with m-PETVAS score.

**Results:** Thirty-eight imagings of 28 patients (F/M=22/6, mean age=39,7 ± 14,8 years) were evaluated. Median CRP level was 16,7 (2-126) mg/L. Median m-PETVAS score was 5 (0-27) and m-PETVAS was significantly higher in patients who were accepted as active according to PGA (median PETVAS score 6,0 vs 1,5,  $p=0.03$ ). Similarly, patients who have an active PET assessed with only visual analysis (VA) have higher m-PETVAS scores than patients who were VA inactive (median score 9,0 vs 2,5,  $p=0.000$ ). A positive correlation was observed between the CRP levels before imaging and total m-PETVAS scores ( $p=0.01$ ,  $\rho=0.52$ ). In 35/38 imaging assessments the score was >0 and the immunosuppressive agent was changed in 24 (63%) of these patients. Twenty-seven patients received corticosteroids before imaging. No difference in PETVAS scores were present between patients who were taking steroids vs non-steroid use. In 11 patients (29%), PET involvement other than the 9 arterial areas used for assessing the score, were observed. The mean age of this group was higher than the rest of the group (47,2±14,7 vs 35,7 ±11,2 years).

**Conclusion:** FDG-PET-CT assessment with a modified PETVAS (assessed at one hour) demonstrated higher scores in patients with Takayasu's