

- [2] Ingo Einspieler, et al. Eur J Nucl Med Mol Imaging 2015 42:1012–1024
 [3] Quinn KA, et al. Ann Rheum Dis 2018;77:1166–1172.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.4429

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

Sema Kaymaz Tahra, Fatma Alibaz-Oner, Haner Direskeneli. *Marmara University Faculty of Medicine, Division of Rheumatology, Istanbul, Turkey*

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

- [1] Omma A., Erer B., Karadag O.et al. (2017). Remarkable damage along with poor quality of life in Takayasu arteritis: cross-sectional results of a long-term followed-up multicentre cohort. Clin Exp Rheumatol., 35, 77-82.

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 diasease	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/minör 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

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.6025

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

Sema Kaymaz Tahra¹, Salih Özgüven², Ali Ugur Unal¹, Fatma Alibaz-Oner¹, Tunc Ones², Tanju Yusuf Erdil², Haner Direskeneli¹. ¹Marmara University Faculty of Medicine, Department of Internal Medicine, Division of Rheumatology, Istanbul, Turkey; ²Marmara University Faculty of Medicine, Department of Nuclear Medicine, Istanbul, Turkey

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

arteritis who were considered clinically active or had increased CRP. However, the scores were lower compared to the original scoring performed at two hours. Therefore, whether one hour investigations have sufficient discriminatory value requires further studies.

REFERENCES

- [1] - Grayson PC, Alehashemi S, Bagheri AA, et al. 18 F-Fluorodeoxyglucose-Positron Emission Tomography As an Imaging Biomarker in a Prospective, Longitudinal Cohort of Patients With Large Vessel Vasculitis. *Arthritis Rheumatol.* 2018;70:439-449.
- [2] - Dejaco C, Ramiro S, Duftner C, et al. EULAR recommendations for the use of imaging in large vessel vasculitis in clinical practice. *Ann Rheum Dis.* 2018;77:636-643.

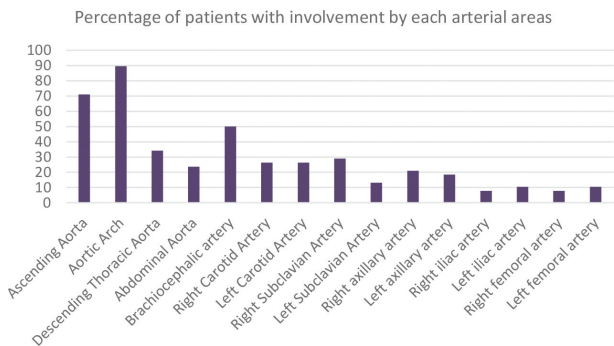


Figure 1

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.6843

AB0598 OSTEOPOROSIS AND RISK OF GIANT CELL ARTERITIS: A COMPARATIVE STUDY

PENDU Claire LE¹, Patrick Tchouante¹, Kim Ly², Jean-François Alexandra³, Natella Aslanbekova², Khadija Benali³, Solange Gonzalez-Chiappe¹, Sarah Lechtman⁴, Damien Sene⁴, Cornelia Weyand⁵, Karim Sacre³, Alfred Mahr¹.
¹Saint-Louis University Hospital, PARIS, France; ²Limoges University Hospital, Limoges, France; ³Bichat University Hospital, PARIS, France; ⁴Lariboisière University Hospital, PARIS, France; ⁵Stanford University, PALO ALTO, United States of America

Background: Giant cell arteritis (GCA) and osteoporosis (OP) share many epidemiological features, such as occurrence in people >50 years old and increased incidence in women and northern Europe. Some known risk factors of OP, such as early menopause, nulliparity, low body mass index (BMI) and smoking, have also been linked to increased risk of GCA.

Objectives: We performed this study to investigate a potential link between OP and GCA onset by screening for OP by computed tomography (CT).

Methods: We retrospectively analyzed consecutive patients who underwent temporal artery biopsy (TAB) for suspected GCA in 4 hospitals. Cases and controls were defined by TAB-proven GCA and non-GCA diagnosis, respectively. Selection criteria additionally included 18F-FDG PET/CT at ± 30 days (GCA cases) or ± 90 days from the date of TAB (non-GCA controls). A radiologist blinded to patients' case or control status used CT images to measure the mineral density of trabecular bone in the first lumbar vertebra of all patients. OP was defined by previously identified thresholds of ≤ 110 Hounsfield units (HU) or ≤ 135 HU (1). We compared cases and controls for proportion of OP for the entire population and by sex. Statistical analyses involved chi-square and Student t tests for categorical and continuous variables, respectively.

Results: We included 50 cases and 59 controls. The most common diagnoses for controls were neurological disorders (n=21), autoimmune diseases (n=8), infections (n=10) and lack of an identifiable acute disease (n=9). Main demographic characteristics, prior cardiovascular and OP risk factors, and laboratory results are in the Table. Cases and controls did not differ in proportion with OP in the overall population (46% vs 49% [≤ 110 HU] and 60% vs 69% [≤ 135 HU]) or by sex (Table).

Conclusion: This study confirms that OP risk factors, that is, low BMI and nulliparity, are overrepresented in GCA, but our data do not suggest higher OP frequency in patients with new-onset GCA than controls. The

high absolute proportion of OP in patients with new-onset GCA deserves further investigation because it may have practical implications in these patients at risk of glucocorticoid-induced bone loss.

	GCA cases n=50	Controls n=59	P
Age at TAB, mean (SD)	72.6 (8.3)	70.4 (10.6)	0.227
Women, n (%)	30 (60)	35 (59)	1
Ever smoking, n (%)	22/47 (47)	20/50 (40)	0.499
Nulliparous women, n (%)	10/27 (37)	3/30 (10)	0.015
Body mass index, mean (SD)	24.0 (3.5) [47]*	25.9 (4.9) [51]*	0.030
History, n (%)			
Diabetes	6 (12)	18/58 (31)	0.020
Hypertension	31 (62)	44/58 (76)	0.119
OP fractures or OP treatment	3/42 (7)	7/59 (12)	0.516
Hypercholesterolemia	9/49 (18)	21/58 (36)	0.041
CRP (mg/l) at TAB, mean (SD)	96.9 (58.3) [47]*	45.9 (68.2) [59]*	<0.0001
Hb level (g/dl) at TAB, mean (SD)	11.5 (1.7) [44]*	12.2 (2.1) [59]*	0.048
OP (≤ 110 HU) at TAB, n (%)			
All	23 (46)	29 (49)	0.743
Women	17/30 (57)	20/35 (57)	0.970
Men	6/20 (30)	9/24 (38)	0.601
OP (≤ 135 HU) at TAB, n (%)			
All	30 (60)	41 (69)	0.300
Women	21/30 (70)	27/35 (77)	0.514
Men	9/20 (45)	14/24 (58)	0.378

*No. of patients with available data.

GCA: giant cell arteritis; TAB: temporal artery biopsy; OP: osteoporosis; CRP: C-reactive protein level; Hb: hemoglobin level

REFERENCE

- [1] Pickhardt PJ et coll. Opportunistic screening for osteoporosis using abdominal computed tomography scans obtained for other indications. *Ann Intern Med.* 2013 16;158:588-95.

Disclosure of Interests: Claire LE PENDU: None declared, Patrick TCHOUANTE: None declared, Kim LY: None declared, Jean-François ALEXANDRA: None declared, Natella ASLANBEKOVA: None declared, Khadija Benali: None declared, Solange GONZALEZ-CHIAPPE: None declared, Sarah LECHTMAN: None declared, Damien Sene: None declared, Cornelia Weyand: None declared, karim sacre Grant/research support from: GSK, Alfred Mahr Consultant for: Chugai Pharma France, Speakers bureau: Roche SAS Chugai Pharma France
DOI: 10.1136/annrheumdis-2019-eular.2388

AB0599 CLINICAL MANIFESTATIONS OF BEHÇET'S SYNDROME IN A LARGE COHORT OF ITALIAN PATIENTS: FOCUS ON GENDER DIFFERENCES

Pietro Leccese¹, Nancy Lascano¹, Maria Carmela Padula¹, Teresa Carbone¹, Angela Padula¹, Salvatore D'angelo^{1,2}.
¹Rheumatology Institute of Lucania (IReL), San Carlo Hospital, Potenza, Italy; ²Basilicata Ricerca Biomedica (BRB) Foundation, Potenza, Italy

Background: Behçet's syndrome (BS) is a chronic multisystemic inflammatory disorder classified among primary vasculitis. BS clinical hallmarks are mucocutaneous manifestations which include oral aphthosis (OA), genital ulcers (GU) and a wide spectrum of skin lesions. Other BS features include ocular inflammation, articular, gastrointestinal, vascular and neurological involvement. Some evidences suggest that in non endemic regions the disease tend to be less severe and women seem to be more commonly affected [1-3].

Objectives: The aim of this study was to investigate the clinical phenotypes of Italian BS patients with respect to gender and HLA-B51 status.

Methods: We retrospectively evaluated 324 Italian patients (185 males and 139 females), seen consecutively at Rheumatology Institute of Lucania (IReL) from 1st January 2000 to 31st December 2017. Demographics, clinical features during follow-up and HLA status were obtained from a review of medical records. The analysis was limited to patients fulfilling the ISG criteria.

Results: 324 BS patients were identified in our database. 39 (17 males and 22 females) were excluded because did not satisfied ISG criteria and 285 (168 males and 117 females) resulted eligible for the present study. Results are summarized in table 1. We found statistically significant differences in papulopustular lesions, posterior uveitis and deep venous thrombosis (DVT), which occur more frequently in males compared with females (83.3% versus 46.2%, 37% versus 18.8% and 8.3% versus 0.9% respectively; p<0.01). Erythema nodosum (EN) (59% versus 41.1%, p<0.01), arthralgia (52.1% versus 31.5%, p<0.01) and intestinal involvement (11.3% vs 21.4% p<0.05) resulted more frequent in females compared with males. No differences were found in HLA status (M 67.9% vs F 61.5%).