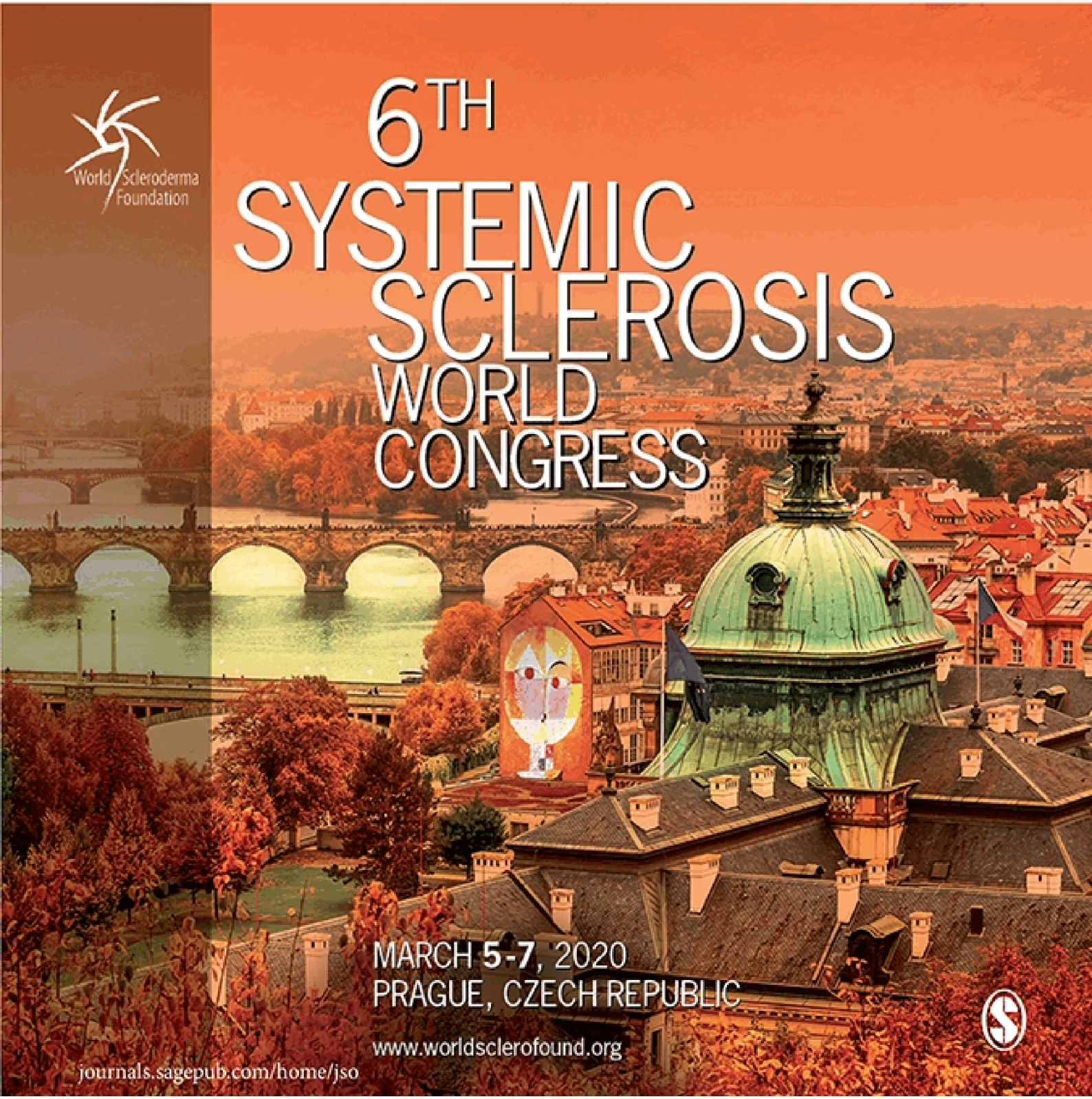
JSRD
Journal of Scleroderma and Related Disorders



P.314

SYSTEMIC SCLEROSIS AND VITAMIN D DEFICIENCY

L. Athanassiou[1], I. Kostoglou[2], E. Devetzi[3], M. Gatsiou[3], P. Tsakiridis[3], M. Mavroudi[3], A. Tzanavari[3], P. Athanassiou[3]

[1]First Department of Medicine, Asclepeion Hospital, Voula, Athens, Greece, [2]Department of Endocrinology, Asclepeion Hospital, Voula, Athens, Greece, [3]Department of Rheumatology, St. Paul's Hospital, Thessaloniki, Greece

Introduction: Vitamin D deficiency has been shown to be associated with autoimmune diseases. In particular, vitamin D deficiency has been found to be associated with disease severity and disease activity in rheumatoid arthritis. Systemic lupus erythematosus has also been found to be associated with vitamin D deficiency, some reports also relating disease activity with vitamin D deficiency. Systemic sclerosis has also been associated with vitamin D deficiency. The aim was to study vitamin D levels in a cohort of systemic sclerosis patients.

Material and Methods: In a cohort of 65 systemic sclerosis patients, 58 female and 7 male, aged range 32-82, 62.3±2.3 (mean±SEM) years, 25(OH)D3 levels were measured by radioimmunoassay. 25(OH)D3 levels were also measured in a control group. Statistical evaluation was performed with SPSS.

Results: 25(OH)D3 levels in the group of systemic sclerosis patients were 9.35±0.7 ng/ml (mean±SEM) as opposed to those in the control group 25.85±1.59 ng/ml ($p<0.001$, Student's t test).

Conclusions: Vitamin D deficiency was observed in a cohort of systemic sclerosis patients. Vitamin D deficiency has been reported also by other groups. In particular, Hax et al (J Clin Rheumatol 2019) measured vitamin D levels in a cohort of systemic sclerosis patients in Brazil. They found lower vitamin D levels in the cohort of patients, as opposed to the control group, levels however higher than those observed in our cohort. They also measured cytokine levels, however, they found no association between vitamin D and cytokine levels. Zhang et al (Int J Rheum Dis 2017) measured vitamin D levels in a cohort of Chinese patients with systemic sclerosis. They observed lower vitamin D levels in their cohort as opposed to the control group. It appears, that vitamin D deficiency is observed in systemic sclerosis. Further investigation is required to assess the association of vitamin D deficiency with subgroups of the disease.

P.315

FEATURES OF DAMAGE OF THE GASTROINTESTINAL TRACT IN PATIENTS WITH SYSTEMIC SCLERODERMA

V. Aleksandrov[1,2], L. Shilova[1], A. Aleksandrov[1,2], I. Zborovskaya[1,2]

[1]Volgograd State Medical University, Department of Hospital Therapy, Volgograd, Russia, [2]Research Institute for clinical and experimental rheumatology named after A.B. Zborovsky, Volgograd, Russia

Introduction: Systemic scleroderma (SSc) is an autoimmune disease of connective tissue. Main manifestations of SSc are associated with ischemia and fibrosis of tissues and internal organs. Up to 80% of patients with SSc face various manifestations of the gastrointestinal tract (GIT) lesion. SSc is associated with an increased risk of cancer, especially lung, blood and digestive cancer.

Objective: to study the clinical features and severity of lesions of the gastrointestinal tract in case of SSc.

Material and Methods: The study included 83 patients with SSc (97.6% of women, mean age 50.3±11.9, disease duration 8.3±7.1 years). All patients were assigned to laboratory and instrumental studies, including ultrasound of the abdominal organs, fibrogastroduodenoscopy (FGS), and X-ray of the digestive tract. Lesion of the organs of the gastrointestinal tract and liver was diagnosed in 73 (87.9%) patients with SSc. The main complaints of patients were: dysphagia (79.5%), nausea (46.6%), epigastric pain (46.6%), heartburn (39.7%), diarrhea or constipation (38.4%).

Results: When conducting an X-ray examination a slowdown in barium passage (more than 10 seconds) was detected in 59% of patients. According to the results of FGS, signs of gastroesophageal reflux were found in 40% of patients. In 3 patients an esophageal erosion was found, and in 2 patients a severe esophageal stenosis accompanied by Barett's metaplasia was shown.

Ultrasound examination of the abdominal organs in 36 patients (49.3%) revealed signs of damage to the liver and pancreas (hepatomegaly, diffuse changes in the parenchyma of the liver, pancreas, uneven contours, heterogeneity of the structure, pseudocysts).

3 patients (4.1%) had jaundice; laboratory tests (blood amylase, transaminases) were increased in 32 people (43.8%); a coprological examination revealed signs of steatorrhea and creatorrhea in 21 (28.8%) patients.

The presence of gastrointestinal and liver malignancies was found in 5 patients with SSc. SSc was detected before cancer diagnosis in 2 cases (esophageal cancer and liver cancer), but after oncopathology SSc was detected in 3 cases (esophageal cancer, stomach cancer and liver cancer). Moreover, both patients with primary diagnosis of SSc were under the age of 40, and all patients with primary diagnosis of oncopathology were over the age of 50 years.

Conclusions: The study of gastrointestinal manifestations in the context of malignant neoplasms can improve the understanding of the pathogenesis of SSc. New therapeutic approaches, taking into account the involvement of the

digestive tract, as well as monitoring and reducing risk factors, can affect the development of malignant processes in SSc.

11. Gender Related Issues

P.316

PREGNANCY OUTCOME IN SYSTEMIC SCLEROSIS; IS THERE ANY CORRELATION BASED ON TOPO I, DISEASE SUBTYPES AND DISEASE ONSET?

H. Poormoghim[1], M. Shakerian[1], E.Andalib[1], Z. Zahra Raufi[1], A. Jalali[2]

[1]*Firoozgar hospital .Iran University of Medical Sciences, Tehran, Iran*
[5]*Tehran University of Medical Sciences, Tehran, Iran*

Introduction: To determine correlation between disease subtypes, onset and presence of anti-topoisomerase I on pregnancy outcome in women with systemic sclerosis

Material and Methods: One hundred and twenty-nine female patients whose onset of first disease symptoms began before age 45 years from those referred to Firoozgar outpatient scleroderma clinic were asked about pregnancy and its outcome. Demographic and disease data were extracted from our scleroderma data base. Systemic sclerosis was diagnosed according to ACR/EULAR and classified according to LeRoy criteria.

Results: Total of 109 (84%) pregnancy reported, 52 (78.8%) in dcSSc, 57(90.5%) in lcSSc. Twenty women (15.5%) never had pregnancy (14 dcSSc, 6 lcSSc). Hundred and two (93.6%) had successful pregnancy. Total reported pregnancy was 278 (mean of 2.55 pregnancy/ woman), mean pregnancy rate in dcSSc and lcSSc were 2.36 % vs 2.71% respectively. Women had more live delivery before disease onset [70/71 (98%) vs 12/49 (67%), OR 0.02 (0.003- 0.25), p=0.001]. Number of successful pregnancies before disease onset versus after were 33 (67%),191 (83.3%), [OR 0.4 (0.20-0.81), p=0.01]. Abortion rate, after and before disease onset showed no significant difference p= 0.94 whereas, spontaneous abortion was more prevalent after disease onset, [12/49 (24.4%) vs 22/229 (9.6%), p=0.005, OR 3.05 (1.39-6.69)]. Preterm delivery reported in 9/71 (12.6%) and 8/49 (16.3%) before and after disease onset [OR: 5.51(1.72-17.63), p=0.004]. Preterm delivery before and after disease onset were [10/229 (4.3%), 8/18 (44.4%), OR: 4.76 (1.73-13.08), P=0.002]. Cesarean section, Neonatal death and very low birth weight babies were more prevalent in deliveries after versus before disease onset, 18 (36.7%) vs 48 (20.9%) [OR: 2.18 (CI:1.12-4.24), P=0.02], 1/49 (2%) vs 3/229 (1.3%), (P=0.57) and 3/49 (6%) vs 2/229 (1%), [7.40 (1.20 - 45.55), p=0.03] respectively. Disease subtypes and anti-topoisomerase I show no correlation with pregnancy complications after disease onset.

Conclusions: The result of the study showed successful pregnancy after disease onset occurred in two-third of SSc pregnancies. In Pregnancies after Systemic sclerosis onset rates of preterm delivery, pregnancy loss, very low-birth weight increased. Disease subtypes and anti-topo abs have no effect on pregnancy outcome after disease onset.

P.317

CLINICAL CHARACTERISTICS OF MALE PATIENTS WITH SYSTEMIC SCLEROSIS; RESULTS FROM IRANIAN SYSTEMIC SCLEROSIS REGISTRY

A. Javinani, F. Gharibdoost, A.R. Jamshidi, Z. Tamartash, M. Mahmoudi, H. Kavosi

Rheumatology Research Center, Tehran, Iran

Introduction: Systemic sclerosis (SSc) is an autoimmune disorder that frequently affects females. However, anecdotal results exist regarding the more severity of SSc clinical manifestation between two genders. This study was undertaken to investigate the clinical features of male SSc patients.

Material and Methods: This study was a retrospective investigation from Iranian SSc registry. The clinical manifestations, laboratory parameters, and serologic data were compared between male and female patients. Variables were compared by Chi-square and independent sample t-test.

Results: Among 660 studied patients, 93 cases (14.1%) were male with the female to male ratio of 6 to 1. Male SSc patients had the mean age at Raynaud's phenomenon of 34.68 ± 14.30 years that was similar to female cases (P-value: 0.787). Male patients had a higher percentage of diffuse subtype of SSc with the prevalence of 73.4% in comparison to 57.2% (P-value: 0.007). The mean modified Rodnan skin score was 19.60 ± 10.11 in male cases that was significantly higher than female patients (P-value: <0.001). The prevalence of imaging-proven interstitial lung disease was 59.7% with the mean predicted forced vital capacity was 75.83 ± 21.26% among male SSc patients that was not statistically different from females (P-value: 0.466). The mean predicted pulmonary artery pressure was 30.28 ± 10.70 and 29.30 ± 9.10 mmHg among male and female patients, respectively (P-value: 0.425). The scleroderma renal crisis was reported in 4 male patients (4.6%) that was higher than female counterparts (P-value: 0.003). The prevalence of gastrointestinal manifestations was similar in both gender groups (P-value: 0.377). The previous history of digital ulcer and telangiectasia were present in 44.3 and 46.2% of male patients, respectively. The prevalence of arthritis, inflammatory myopathy and calcinosis cutis were not higher in male patients. Nineteen percent of male cases have reported erectile dysfunction. Anti-topoisomerase and anti-centromere antibodies were positive in 54.2 and 2.0% of male cases without significant difference in comparison to female patients.