observed in 6 of 11 cases. Different tissues and organs were affected to varying degrees, and the anatomic changes were simultaneously present in different stages at various sites. In all cases SSc was the basic disease which led to death.

Conclusion Anatomic changes could be seen in the early, advanced or late stages of the disease, essentially related to the chronology of the progressive sclerotizing process. SSc can be considered to be a progressive multifocal process characterised by simultaneous histological changes in different stages of their progression. In the course of the disease new foci form, which increase and become confluent, ultimately leading to diffuse, systemic interstitial sclerosis. (Supported by ETT Project T-11 226/99 of the Hungarian Ministry of Health).

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AB0109 CARDIAC ABNORMALITIES IN SYSTEM SCLERODERMA

R Yatsyshyn, YE Neyko, YU Delva. *Internal Diseases, Medical Academy, Ivano-Frankivsk, Ukraine*

10.1136/annrheumdis-2001.257

Background During last decade the morbidity rates in system scleroderma (SSc) have been increased. The bridge-head of aggression in SSc is huge, since there are actually no organs without connective tissue in the human organism. It also determines a high frequency of different visceral complications in SSc. The cardiac lesions in SSc are frequent visceral manifestation of illness, very often resulting in fatal consequences. In this context we attempted to analyse the main forms of cardiac pathology in SSc.

Objectives We examined 52 patients (pts) with SSc. Among them women were predominant (38/52, 73%). The age of patients and duration of disease varied from 29 to 48 and from 2 to 9 years, the average age of patients and average duration of disease constituted 36.2 ± 1.1 and 4.6 ± 0.4 years respectively. The patients with moderate activity of pathological process (degree I and II) were absolute majority (46/52 pts, 88.4%). Visceral implications were diagnosed in 42/52 pts (80.7%), among them cardiac lesions – in 41/52 pts (78.8%).

Methods Electrocardiography (ECG), echocardiography (EchoCG).

Results ECG abnormalities were detected in 41/52 pts (78.8%). Cardiac arrhythmia was determined in 32/52 pts (61.5%). Its most frequent form was extrasystole (18/52 pts, 34.6%): ventricular (9/52 pts, 17.3%), atrial (6/52 pts, 11.5%), atrioventricular (3/52 pts, 5.8%), single (8/52 pts, 15.4%) and group (10/52 pts, 19.2%) extrasystole. Violations of conductivity were also frequent: atrial – in 18/52 pts (34.6%), ventricular – in 16/52 pts (11.5%), right bundle-branch block – in 6/52 pts (11.5%). These abnormalities correlated with duration of disease, but did not depend on activity of SSc. Among 41 patients with ECG abnormalities the decrease of voltage was detected, possibly due to expanded cardiosclerosis.

EchoCG was conducted to determine myocardial contractility. In 27/52 pts (51.9%) was diagnosed LVEF reduction on 5%, in 11/52 pts (21.2%) – on 7–8%, in 3/52 pts (5.8%) – on 10% and more. The mitral valve diseases and pericardial implications were detected in 8/52 pts (15.4%) and 11/52 pts (21.2%) respectively.

Among all these patients the phenomena of myocardial dystrophy and hypoxia, violation of conductivity, excitability and cardiac output were detected that resulted in chronic heart failure. In many cases the heart failure was latent, resulting in late diagnosis and treatment.

Conclusion Carditis was diagnosed among more than three fourth of patients with SSc. The main reason of its development seems to be system sclerosis.

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AB0110 PULMONARY FUNCTIONAL ABNORMALITIES IN ASYMPTOMATIC PATIENTS WITH SYSTEMIC SCLEROSIS

¹C Marcisz, ¹AT Kotulska, ¹EJ Kucharz, ²L Brzezinska-Wcislo, ¹G Jonderko. *¹Internal Medicine and Rheumatology; ²Dermatology, Medical University of Silesia, Katowice, Poland*

10.1136/annrheumdis-2001.258

Background Systemic sclerosis (SSc) is a multisystem disease and pulmonary manifestations are common in SSc patients. Involvement of the lungs in SSc patients is detected with x-ray and functional pulmonary testing. The relationship of the development of the pulmonary abnormalities to duration of the disease and other organ involvement remains unclear.

Objectives The present study was designed to determine the pulmonary function indices in the SSc patients without symptoms of the lung involvement.

Methods Twenty-six women with definite diagnosis of SSc, aged 45.4 ± 11.2 yrs were studied. Control values were obtained from 20 healthy age-matched women. Additionally, the SSc group was compared to the predicted spirometric data based on large population studies. The resting pulmonary function tests were performed with EDS-Sprint spirograph. The measurements were done between 8.00–9.00 AM.

Results Vital capacity and maximal voluntary ventilation were decreased in the SSc patients. Forced vital capacity and one-second forced expiratory volume were also decreased but the later was normal when corrected for reduction of the forced vital capacity. Forced expiratory rate at 50% and 75% of forced vital capacity was impaired in the patients. Forced expiratory flow rate at 25% of forced vital capacity did not differ from the controls. The rate of incidence of abnormal pulmonary functional test in the SSc patients was 30–70 per cent.

Conclusion Pulmonary involvement is common in SSc patients without overt manifestation of the lung disease. The lung function testing is a simple, cheap and safe method for evaluation of the respiratory system, and is recommended as a routine test for all patients with SSc.

AB0111 PROGNOSTIC SIGNIFICANCE OF LIMITED AND DIFUSSE FORM OF SKIN CHANGES IN SYSTEMIC SCLEROSIS

N Damjanov, G Dobrosavljevic, S Pavlov, G Radunovic, I Djurdjic, N Todorovic, M Milenkovic, P Ostojic. *Institute of Rheumatology, Belgrade Hospital, Belgrade, Yugoslavia*

10.1136/annrheumdis-2001.259

Background