

THE ROLE OF ARTERIAL HYPERTENSION IN SYSTEMIC SCLEROSIS IN THE PROGNOSIS OF RENAL FUNCTION IN THE LONG-TERM OBSERVATION (5 YEARS)

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OBJECTIVES

Systemic sclerosis (SSc) is a multifactorial disease in which chronic inflammation and vascular component are very important. Defect of microcirculation in SSc is considered to be related to impairment of internal organs. Arterial hypertension (AH) occurs approximately in 20% of patients with SSc, but its significance for the prognosis remains uncertain. The Aim – to investigate the role of AH in the prognosis of renal function in SSc.

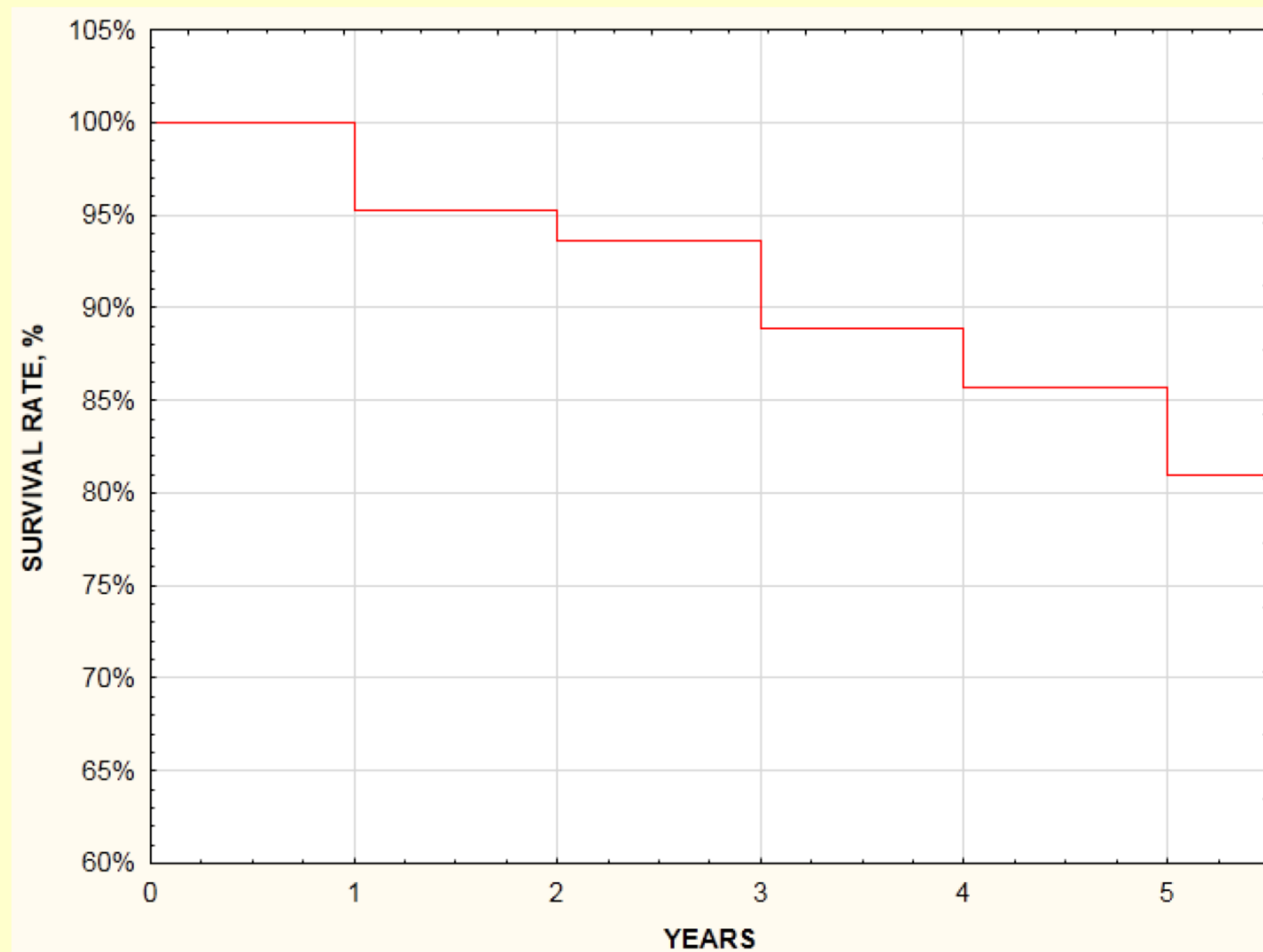
METHODS

There was founded a local registry of patients with SSc (139 people – 134 females and 5 males) and five-year prospective study of these patients was conducted. From all the patients were selected 81 (78 females and 3 males) with a mean age of 49 years and a mean disease duration of 6,05±3,9 years that were most routinely screened. The diagnosis of SSc was based on ACR criteria (1980) and ACR/EULAR Criteria for Scleroderma. The diagnosis of AH was based on 2013 ESH/ESC Guidelines for the management of arterial hypertension. All the patients were treated according to EULAR and local standards. One patient died of scleroderma renal crisis, one developed chronic lymphatic leukemia. None of the patients developed ESRD. Patients were divided into 2 groups: Group 1 – 19 patients (23%) that had AH at the beginning of the study; Group 2 – 62 patients (77%) without AH at the beginning of the study. Group 2 was divided into two subgroups: subgroup A – 12 patients that developed AH over five years; subgroup B – 50 patients that hadn't developed AH over five years. We used appearance of proteinuria as a sign of renal damage. Glomerular filtration rate (GFR) was calculated using CKD-EPI.

RESULTS

In Group 1 proteinuria at the beginning was detected in 6 patients (31%), after 3 years – in 9 (47%), after 5 years – in 11 (58%). GFR at the beginning – 75,4±11,8 ml/min, after 3 years – 59,9±5 ml/min, after 5 years – 79,2±9,5 ml/min. In Group 2 proteinuria at the beginning was detected in 16 patients (26%), after 3 years – in 24 (38%), after 5 years – in 32 (52%). GFR at the beginning – 97,4±10 ml/min, after 3 years – 91,2±6,6 ml/min, after 5 years – 95,4±5,7 ml/min. In Group 2 AH developed after 3 years in 7 patients (11%), after 5 years – in 12 (19%). In subgroup A proteinuria at the beginning was detected in 2 patients (17%), after 3 years – in 4 (33%), after 5 years – in 6 (50%). GFR at the beginning – 72,7±4,1 ml/min, after 3 years – 80,4±6,8 ml/min, after 5 years – 80,1±4,5 ml/min. In subgroup B proteinuria at the beginning was detected in 14 patients (28%), after 3 years – in 20 (40%), after 5 years – in 26 (52%). GFR at the beginning – 104,2±10,6 ml/min, after 3 years – 96,2±7,2 ml/min, after 5 years – 96,5±7,5 ml/min.

AH INCIDENCE



CONCLUSIONS

AH at the SSc onset can be regarded as a prognostic factor of higher risk of renal complications. Development of AH in the first five years of disease is associated with further reduction of renal function. There is no evidence between development of AH in the first five years of SSc and incidence of proteinuria. Risk of development of AH for patients with SSc for five years – 19%.

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