



## CLINICAL AND EPIDEMIOLOGICAL FEATURES OF COMPLEX DISEASES IN SELF TREATMENT

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### Annotation

Diseases of osteoporosis and the assessment of the patient is taken from the degree of fracture as a marker of many diseases. But bone mineral density (SMZ) is also associated with disease and the risk of fracture. Metabolic disorders associated with secondary osteoporosis are 2-3 times higher in women and in men with hip fractures and vertebral fractures. Globally, osteoporosis is the most common metabolic, bone disease, affecting more than 200 million people worldwide. In Europe, the United States and Japan, 75 million people are diagnosed with osteoporosis. As SMZ decreases, osteoporosis increases with age. Senile osteoporosis is more common in people over 70 years of age. Secondary osteoporosis can occur in any person. Although bone loss in women begins gradually, it accelerates menopause, with delivery at age 50 and beyond. The incidence of postmenopausal osteoporosis is highest in 50-70 women. Women are higher on osteoporosis. Half of postmenopausal women have fractures associated with life and osteoporosis; Ush develops a spinal deformity in 25% of women, and 15% experience hip fractures. Hip fractures are similar in different ethnicities.

**Keywords:** Osteoporosis, systemic scleroderma, vasculopathy, cellular, humoral autoimmune, densitometry, injuries, hormonal, diabetes mellitus.

### Introduction

Systemic scleroderma (TSD) is a disease of unknown connective tissue of unknown etiology, clinically heterogeneous and chronically progressive. It is based on three pathological processes: vasculopathy, cellular and humoral autoimmune conditions, and progressive visceral and vascular fibrosis in many organs. In the United States, the disease causes 9 to 19 cases per 1 million people each year. [2,33]

According to the National Osteoporosis Foundation (MOF), in 2010, more than 10 million adults over the age of 50 in the U.S. had osteoporosis, and more than 43 million had low bone mineral density. In 2015, there were 2.3 million osteoporotic fractures from nearly 2 million Medicare in the United States. Within 12 months of experiencing a new osteoporotic fracture, approximately 15 percent of patients





experienced one or more subsequent fractures, and nearly 20 percent died. Mortality was highest in patients with hip fractures, with 30 percent dying within 12 months. Many studies evaluating the prevalence and morbidity of osteoporosis use the degree of fracture as a marker of disease. But bone mineral density (SMZ) is also associated with risk of disease and fracture.

The risk of hip fracture and spinal fracture is 2-3 times higher in women and men with metabolic disorders associated with secondary osteoporosis.

Globally, osteoporosis is the most common metabolic bone disease, affecting more than 200 million people worldwide. [5] Approximately 75 million people in Europe, the United States, and Japan are diagnosed with osteoporosis. [11]

The risk of osteoporosis increases with age as SMZ decreases. Senile osteoporosis is more common in people over 70 years of age. Secondary osteoporosis can occur in people of any age. Although bone loss in women begins gradually, it accelerates during menopause, usually around the age of 50 and beyond. The incidence of postmenopausal osteoporosis is highest in women aged 50–70 years.

Women are at higher risk for osteoporosis. Half of postmenopausal women have fractures associated with osteoporosis throughout their lives; 25% of these women develop a spinal deformity, and 15% experience a hip fracture. Risk factors for hip fractures are similar in different ethnic groups. [6]

Secondary osteoporosis is common in men, with 45–60% of them resulting from hypogonadism, alcoholism, or glucocorticoid overdose. [8] Only 35–40% of osteoporosis diagnosed in men is primary in nature. In general, the male-to-male ratio in osteoporosis is 4:1. As a result, osteoporosis is not only a medical problem, but also of great social and socio-economic importance.

In the study, 45.19 (13.9) 42 patients aged 24 to 68 years with a diagnosis of TSD (according to the ACR/EULAR classification) (no other rheumatic diseases were identified) were hospitalized in the departments of cardiorheumatology and rheumatology and arthrology.

Covered patients registered at the clinic. IADK TMA Clinic for 2017 - 2019.

Limited systemic scleroderma	<ul style="list-style-type: none"><li>–Sclerosis of the distal limbs and facial skin</li><li>–Already manifested</li><li>Reynaud syndrome<ul style="list-style-type: none"><li>– Low frequency occurrence of severe pulmonary fibrosis and renal crisis</li></ul></li><li>–Low mortality</li></ul>
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Disseminated systemic scleroderma	<ul style="list-style-type: none"><li>→ Proximal skin sclerosis</li><li>→ Recently manifested Raynaud's syndrome</li><li>→ High incidence of pulmonary fibrosis</li><li>→ High risk of kidney crisis</li><li>→ Inflammation and itching of the skin spread in the first 1-3 years</li></ul>
Without systemic scleroderma	<ul style="list-style-type: none"><li>→ Features of ANA activity associated with scleroderma and Reynaud syndrome with at least one internal organ of SSC</li><li>→ The frequency is uncertain, probably because it has been diagnosed</li></ul>
Overlap systemic scleroderma	<ul style="list-style-type: none"><li>→ Cases that meet the classification criteria for SSc and are diagnosed as SSc, but show specific features of other autoimmune rheumatic diseases</li><li>→ Often myositis</li><li>→ Lupus, arthritis or other cases of vasculitis</li><li>→ Makes up to 20% of TSD</li></ul>

Selected patients had no signs of vascular, liver, or kidney disease in clinical or laboratory analysis, no coagulopathy, no oral or transdermal estrogen, progesterone, androgen, or other steroids, and no bisphosphonates affecting bone metabolism. Of these, 4 (4.4%) were male and 38 (95.6%) were female, the duration of the disease was 6.5 (4.6) years, and the number of people currently taking corticosteroids was 8 (19.1%). 4 (9.5%), never received 30 (71.4%), patients did not take vitamin D at all, 29 (69%) patients were diagnosed with damage to the gastrointestinal tract, 13 (31%) with MIT damage not defined.

### Clinical Research Methods

The following clinical classification (Table 3), diagnostic criteria (ACR / EULAR 2013) (Table 4), and the mRSS (modified Rodnan Skin Score) scale were used to assess the degree of skin damage in selecting a patient for TSD diagnosis.



### Diagnostic criteria for systemic scleroderma in 2013 according to ACR / EULAR

The main characters	Sub characters	ball
Hardening of the skin extending from the proximal part of both palms to the metacarpophalangeal joint (main criterion)	—	9
Hardening of the skin of the fingers (only at a high price)	-Swollen fingers -Sclerodactyly	2 4
Injuries to the fingertips (calculated only at high prices)	-Wounds on fingertips -Scars on the fingertips	2 3
Telangiectasia	—	2
Anomalous reaction of nail capillaries	—	2
Pulmonary atrial hypertension, pulmonary interstitial disease, or both	- Pulmonary atrial hypertension - Interstitial lung disease	2 2
Reynaud syndrome	—	3
Antibodies 1. antisentromer 2. antitopoizomerase I [anti-Scl-70] 3. anti-RNA polymerase III	- antisentromer - antitopoizomerase I - anti-RNA polymerase III	3

If the patient has a total score of  $\geq 9$ , he is classified for a diagnosis of systemic scleroderma.

All patients underwent complete clinical examinations and laboratory analyzes. Skin injuries were assessed using the mRSS scale. (Figure 1)





ASSESSING SKIN SEVERITY IN SYSTEMIC SCLEROSIS BY THE MRSS

(a) Histologic correlation of skin score grades



(b) Palpation of skin to assess MRSS



(c) Standard recording of MRSS

- 1 - Uninvolved
- 2 - Mild thickening
- 3 - Moderate thickening
- 4 - Severe thickening

Date \_\_\_\_\_  
ID \_\_\_\_\_

0	1	2	3	Face
0	1	2	3	Abdomen
0	1	2	3	Chest
0	1	2	3	Upper arm
0	1	2	3	Forearm
0	1	2	3	Hand
0	1	2	3	Fingers
0	1	2	3	Thigh
0	1	2	3	Leg
0	1	2	3	Foot

Total \_\_\_\_/51

Using the fingers, the thickness of the skin in 17 areas of the patient's body is assessed by forming folds. If a minimum of 20 points out of a total of 51 points is scored, a score of 9 is given according to the diagnostic criteria. This means that enough points have been collected for diagnosis.

## REFERENCES

1. Tsou P.S, B. J. Rabquer, R. A. Ohara / Scleroderma dermal microvascular endothelial cells exhibit defective response to pro-angiogenic chemokines // Rheumatology (Oxford, England)-2016.Vol.55-P.745-754.
2. Vasikaran S, Eastell R, Bruyere O, Foldes AJ, Garnero P, Griesmacher A / Markers of bone turnover for the prediction of fracture risk and monitoring of osteoporosis treatment: a need for international reference standards // Osteoporos Int-2004.Vol.22-P.391-420.
3. Vacca A, Cormier C, Piras M, Mathieu A, Kahan A, Allanore Y / Vitamin D deficiency and insufficiency in 2 independent cohorts of patients with systemic sclerosis // J Rheumatol-2009.Vol.36-P.1924-1929.
4. Van Etten E, Mathieu C / Immunoregulation by 1, 25-dihydroxy vitamin D3: basic concepts // J Steroid Biochem Mol Biol-2005.Vol.97-P.93-101.
5. Van Halteren AG, Tysma OM, van Etten E, Mathieu C, Roep BO // 1 $\alpha$ , 25-dihydroxyvitamin D3 or analogue treated dendritic cells modulate human autoreactive T cells via the selective induction of apoptosis // J Autoimmun-2004.Vol.23-P.233-239.



6. Vacca A, Cormier C, Piras M, Mathieu A, Kahan A, Allanore Y / Vitamin D deficiency and insufficiency in 2 independent cohorts of patients with systemic sclerosis // J Rheumatol-2009. Vol.36-P.1924–1929.
7. Van den Hoogen F, Khanna D, Fransen J / 2013 classification criteria for systemic sclerosis: an American College of Rheumatology\European League against Rheumatism collaborative initiative // Arthritis Rheum-2013. Vol.65-P.2737–2747.
8. Weinhold B, R uther U / Interleukin-6-dependent and -independent regulation of the human C-reactive protein gene // Biochem J-2011. Vol.327-P.425–429.
9. Wiersinga WM / Clinical relevance of environmental factors in the pathogenesis of autoimmune thyroid disease // Endocrinol Metab-2016. Vol.31-P.213–222.
10. Willis BC, Liebler JM, Luby-Phelps K / Induction of epithelial-mesenchymal transition in alveolar epithelial cells by transforming growth factor-beta1: potential role in idiopathic pulmonary fibrosis // Am J Pathol-2015. Vol.166-P.1321–1332.
11. Wan YN, Zhang L, Wang YJ, Yan JW, Wang BX, Wang J / The association between systemic sclerosis and bone mineral density: a meta-analysis of observational studies // Int J Rheum Dis-2017. Vol.17-P.845–855.
12. Wöbke TK, Sorg BL, Steinhilber D / Vitamin D in inflammatory diseases // Front Physiol-2014. Vol.5-P.244.
13. Yuen SY, Rochwerg B, Ouimet J / Patients with scleroderma may have increased risk of osteoporosis. A comparison to rheumatoid arthritis and noninflammatory musculoskeletal conditions // J Rheumatol-2008. Vol.35-P.1073–1078.
14. Zheng SX, Vrindts Y, Lopez M / Increase in cytokine production (IL-1 beta, IL-6, TNF-alpha but not IFN-gamma, GM-CSF or LIF) by stimulated whole blood cells in postmenopausal osteoporosis // Maturitas-2011. Vol.26-P.63–71.
15. Zhang L, Duan Y, Zhang TP / Association between the serum level of vitamin D and systemic sclerosis in a Chinese population: a case control study // Int J Rheum Dis-2016. Vol. 3-P.11-13.

