Objectives: To evaluate changes in height and BMI over time in patients with axSpA, treated with tumor necrosis factor-α inhibitors (iTNF-α).

Methods: The study included 51 patients with axSpA (ASAS criteria 2009). All the patients were treated with iTNF-α for one and > years. The patient’s height and weight measured before the beginning of iTNF-α inhibitors and during the treatment. Only patients with stable weight (variability ± 2.0 kg from baseline) were included in the study.

Results: Mean age of axSpA patients at baseline was 40.22±13.51, 38 (74.5%) were male, disease duration 12.77±6.82, duration of TNF-α inhibitors treatment 5.64±2.21 years, all the patients had inactive disease. In 19 patients with axSpA diagnostic delay was 8 years. Patients’ height varied between 1.55 – 1.92 m (average height 1.73±0.07 m). Male’s mean height was 1.78±0.05 m, women’s – 1.63±0.05 m. Height decrease over time in patients with AxSpA was 3.74±1.83 cm (from 1.0 to 15.0 cm). Maximal decrease in height was shown in patients with 10 years after the first symptoms emerged. Mean weight in patients who had height loss was 79.75±12.7 kg. Among patients who had decrease of height and stable body mass the difference between BMI at subsequent measurement and the time of treatment initiation (ABMI) was 1.15 kg/m²: BMI at baseline = 26.25±3.34 kg/m², over time of observation BMI = 27.39±3.38 kg/m².

Conclusion: Height loss in axSpA is significant even in patients with inactive disease. Height loss affects BMI calculation that could lead to overestimation of cardiovascular risk, obesity and could change all of the BMI-dependent areas. Correction of BMI calculation for the patients with unstable height is needed.

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