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THE IMPACT OF MEDITERRANEAN DIET ADHERENCE ON LIPID PROFILE AND ATHEROGENIC RISK IN SpA

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INTRODUCTION

Spondyloarthritis (SpA) is frequently associated with metabolic disturbances and increased cardiovascular risk.

OBJECTIVE

The aim of our study was to assess the relationship between lipid profiles, atherogenic indexes, and adherence to the Mediterranean diet in patients with SpA.

METHODS

This cross-sectional study was conducted from November to December 2024 in patients with SpA, defined by **the 2009 ASAS criteria**. Socio-demographic, clinical, and biological data were collected.

Lipid profiles were assessed by measuring total cholesterol (TC), triglycerides (TG), HDLc, and LDLc. Atherogenic indexes were calculated. Dietary habits were evaluated using the **Chrono Med-Diet Score** (CMDS, range −13 to 25), with higher scores indicating better adherence.

RESULTS

- Forty-four patients were included (37 men, and 7 women).
- The mean clinical and lipid parameters are summarized in Table 1.

Table 1: Mean Clinical and Biological Profile of the Study Population

Age (years)	40.23
Age at disease onset (years)	34.25
Disease duration (years)	6.21
Cholesterol (mmol/L)	4.25 ± 0.96
Triglycerides (mmol/L)	1.10 ± 0.56
HDLc (mmol/L)	1.11 ± 0.22
LDLc (mmol/L)	2.59 ± 0.77
TC/HDLc	3.95 ± 0.99
TG/HDLc	1.05 ± 0.55
LDLc/HDLc	2.38 ± 0.80
log[TG/HDLc]	-0.02 ± 0.22

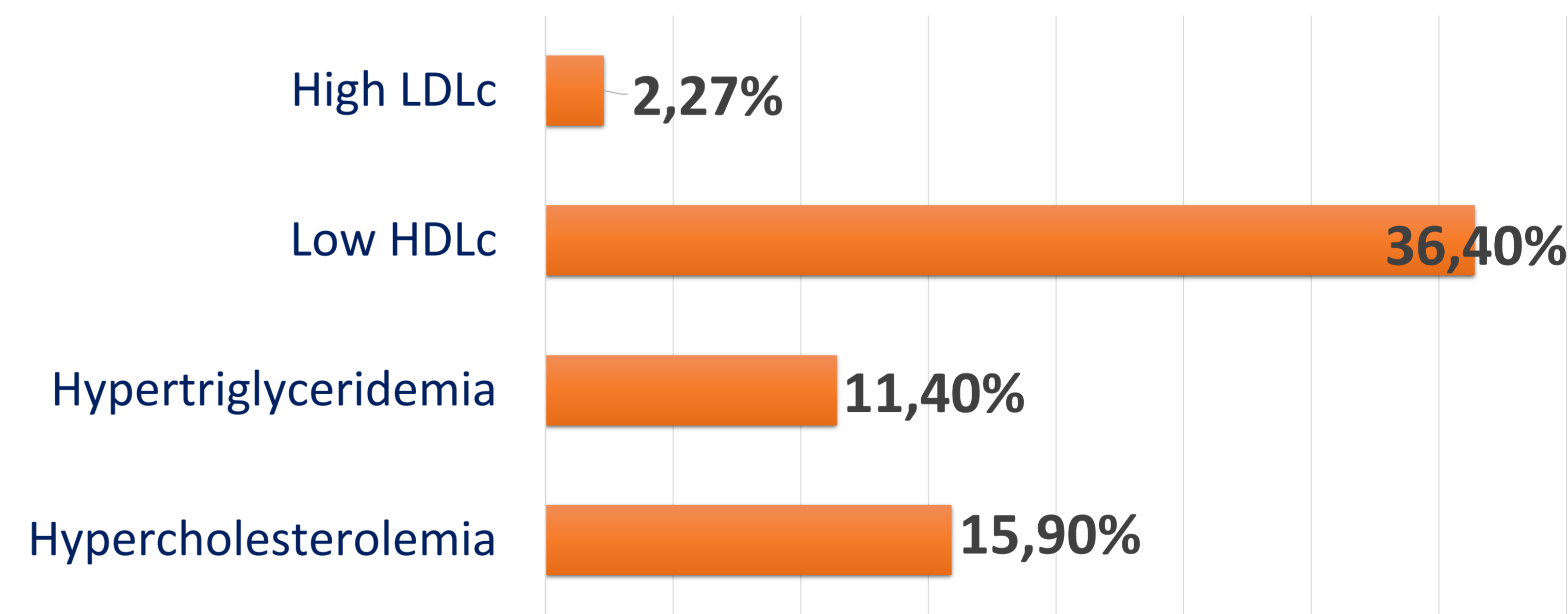- The mean anthropometric measurements are summarized in Table 2.

Table 2. Summary of Mean Anthropometric Measurements

Mean weight (Kg)	75.61 ± 14.44
BMI (kg/m²)	25.53 ± 5.28
Waist circumference (cm)	93.48 ± 13.20

- Figure 1 shows the distribution of lipid profile abnormalities.

Prevalence of Lipid Disorders Among Patients

- The average dietary score was 9.59 ± 4.59 (range 2–20).
- The **significant correlations** between specific dietary factors and lipid profile parameters are summarized in Table 3.

Table 3. Correlations Between Dietary Factors and Lipid Profile Parameters

	Correlation coefficient (r)	p-value
Dietary score vs HDLc	0.337	0.038
Olive oil intake vs HDLc	0.543	0.001
Butter intake vs LDLc	0.375	0.045
Dairy products vs TC/HDLc	-0.446	0.008
Dairy products vs LDLc/HDLc	-0.421	0.023

Conclusion

Better adherence to the Mediterranean diet is linked to favorable lipid profiles, notably higher HDLc levels, suggesting that dietary modifications may help mitigate cardiovascular risk in SpA patients.