

# Sarcopenia in patients with spondyloarthritis – is there any relation with radiological damage?

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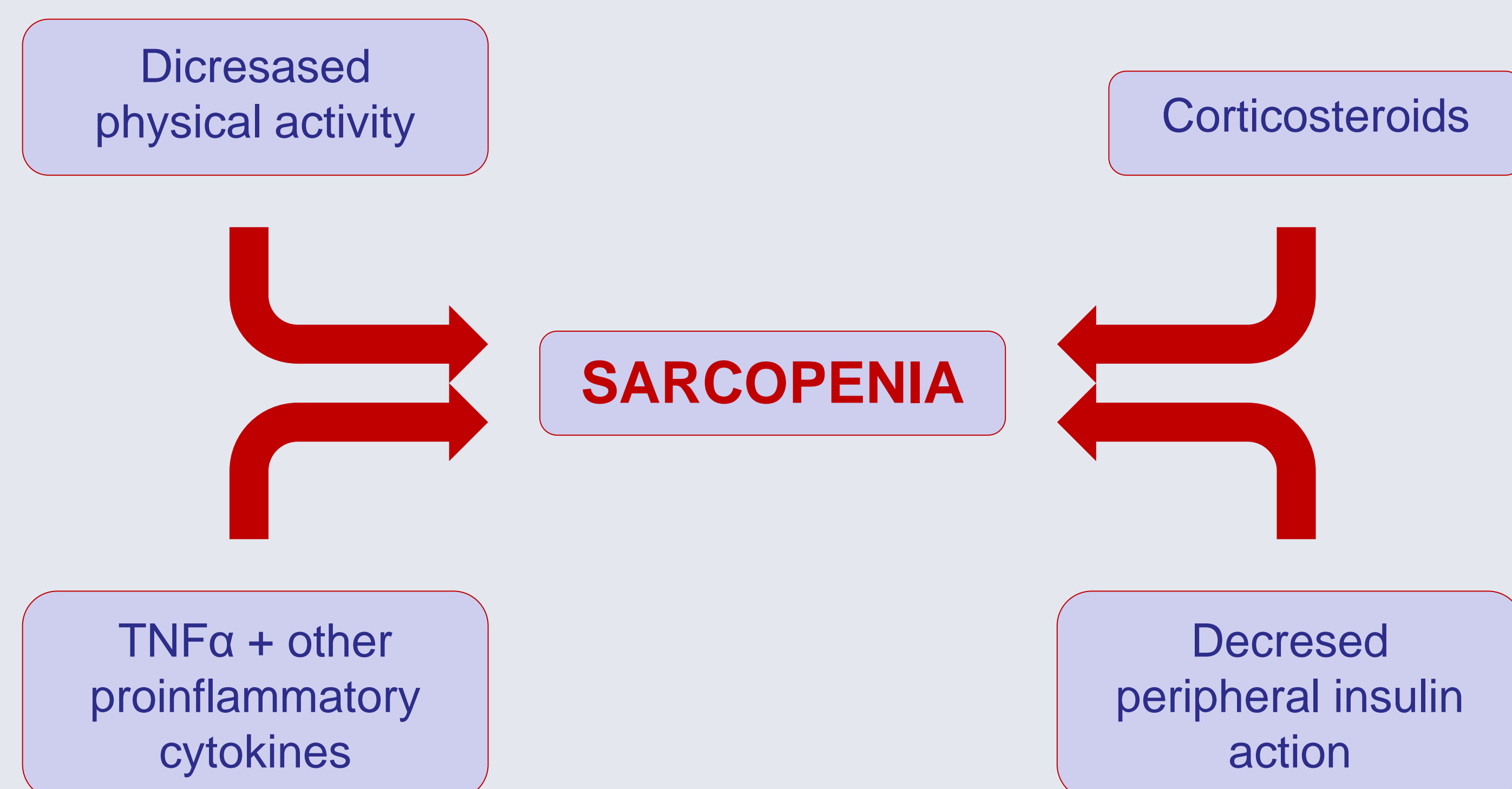
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## Abstract

• **Sarcopenia** is the progressive and generalized loss of muscle mass (MM) and muscle strength associated with ageing and with some pathological conditions.

• The loss of muscle mass (MM) is a serious problem which may cause increased morbidity and mortality.

• Loss of muscle mass has been demonstrated in patients with rheumatoid arthritis. Several mechanisms have been proposed as concurrent to this process:



• There are few studies about the loss of MM in patients with **spondyloarthritis** (Spa)<sup>1,2</sup> and the results have been diverging.

• In a recent case-control study in our department (where cases were patients with either axial or peripheral spondyloarthritis or both, and controls were recruited from a primary healthcare center), **the risk of sarcopenia in Spa patients was twice than in the control group**<sup>3</sup>.

## Objectives

With this work, the authors intended to:

- assess muscle mass index (MMI) in patients with axial Spa
- search for a relation between sarcopenia and radiological damage, evaluated by mSASSS.

## Methods

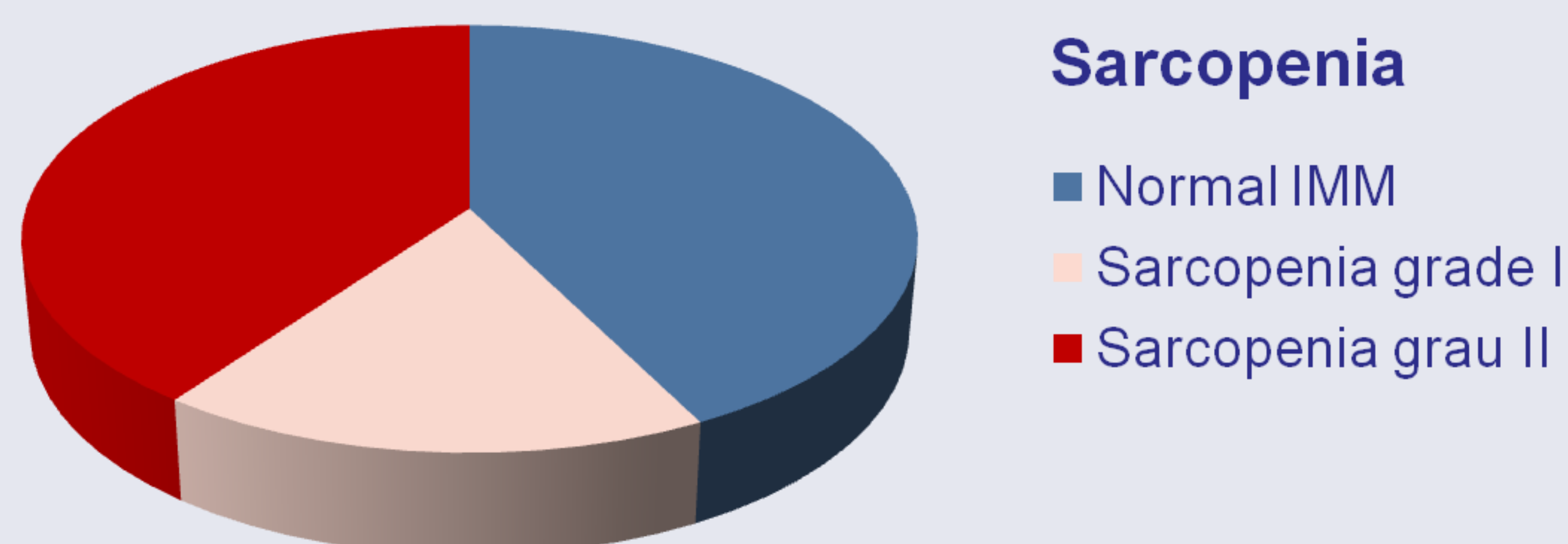
Observational study, in which mSASSS was assessed in a cohort of patients with axial Spa and muscle mass index (MMI) was determined, from the value of MM, using Lee's equation<sup>4</sup>. Data were treated using SPSS version 17.0.

## Results

Ankylosing spondylitis	24
Psoriatic arthritis	16
<b>Total</b>	<b>40</b>

• Forty patients were enrolled in this cohort.

<b>M:F</b>	19:21
<b>Mean age</b>	41.1±14.4 years
<b>Mean disease duration</b>	8.8±10.1 years
<b>Mean mSASSS</b>	8.5±12.1
<b>Mean IMM</b> ♂	7.88±1.02 kg/m <sup>2</sup>
<b>Mean IMM</b> ♀	7.63±0.99 kg/m <sup>2</sup>



• No difference with statistical significance was found between the mSASSS value in different sarcopenia grades ( $p=0.091$ ).

• There was a moderate negative correlation between IMM and mSASSS in males ( $\rho=-0.384$ ), but no correlation was found in females ( $\rho=-0.016$ ).

## Conclusions

- In our cohort, the relation between radiological damage and sarcopenia was restricted to males.
- Patients with different grades of sarcopenia didn't present significantly different mSASSS values.
- **Limitations of this study:** the use of a non validated equation to calculate MM in Portuguese population; the small number of the sample and the bias of measurement.

## References

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- <sup>2</sup>Plasqui, G., Boonen, A., Geusens, P., Kroot, E. J., Starmans, M. and van der Linden, S. (2012), Physical activity and body composition in patients with ankylosing spondylitis. *Arthritis Care Res*, 2012; 64: 101–107
- <sup>3</sup>Aguiar R; Meirinhos T; Sequeira J; Ambrósio C; Barcelos A. Sarcopenia nos Doentes com Espondilartroses – Um Estudo Caso Controlo. Simpósio Inflamação & Dor, Espinho, May 2013
- <sup>4</sup>Lee RC, Wang Z, Heo M, Ross R, Janssen I, Heymsfield SB. Total-body skeletal muscle mass: development and cross-validation of anthropometric prediction models. *Am J Clin Nutr*. May, 2000; 72:796-803.