Anemia in patients with rheumatoid arthritis: prevalence and associated correlating factors

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Introduction:

Rheumatoid arthritis (RA) is a chronic systemic inflammatory disease of unknown etiology, primarily characterized by synovial joint involvement leading to structural alterations. It often presents hematological disturbances, notably anemia Hematological disturbances, particularly anemia, are frequently observed in individuals with RA.
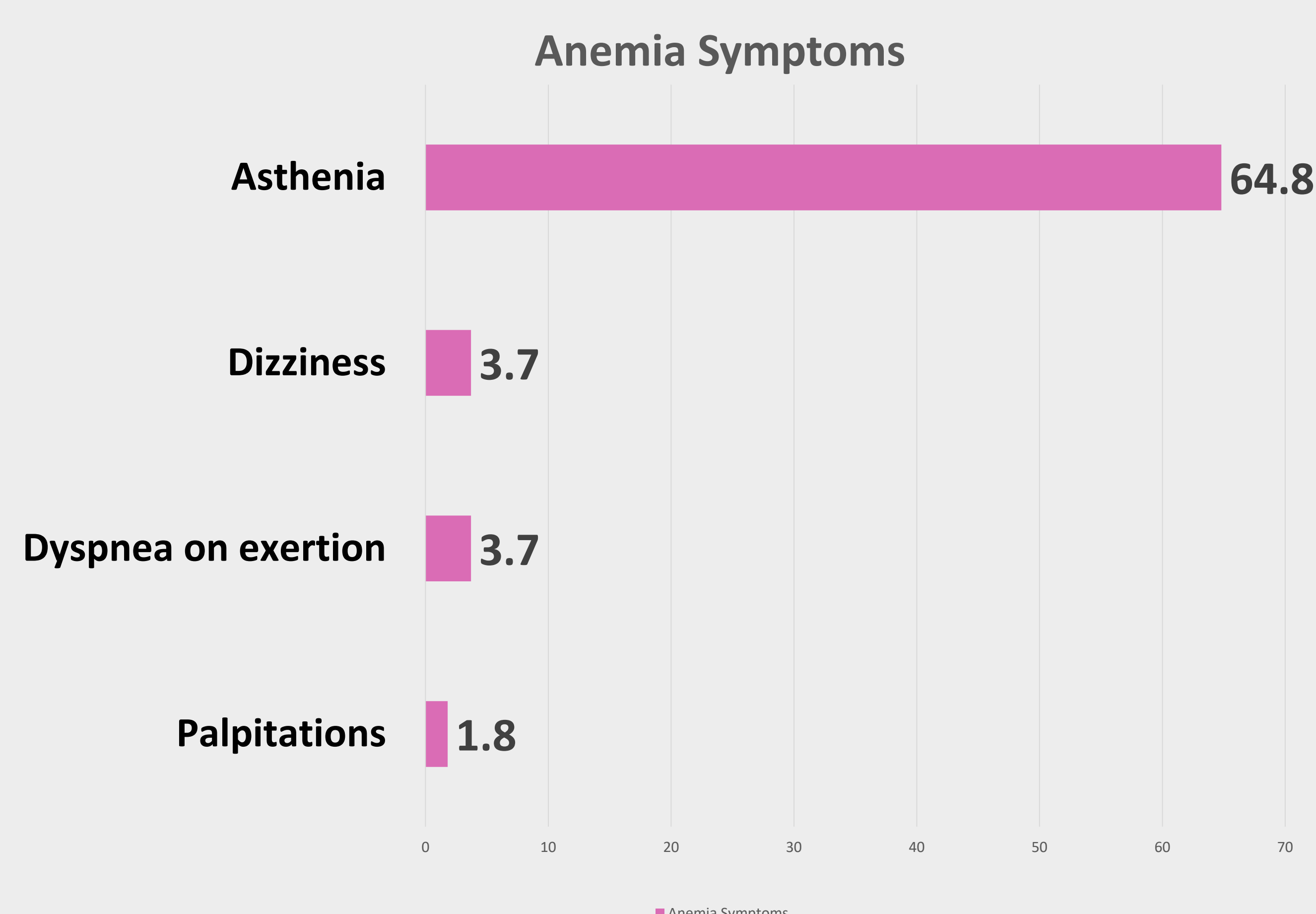
Objectives:

Our study aims to investigate the prevalence of anemia in RA, and explores associated factors, in order to establish correlations with anemia. while also examining the associated factors and their correlation with anemia.
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Method :

This is a descriptive cross-sectional study conducted at the rheumatology department, including patients with RA meeting according to ACR/EULAR 2010 and/or ACR 1987 criteria. For each patient, we collected demographic, clinical, radiological, and therapeutic characteristics related to RA. Demographic, clinical, radiological, and therapeutic data related to RA were collected for each patient.
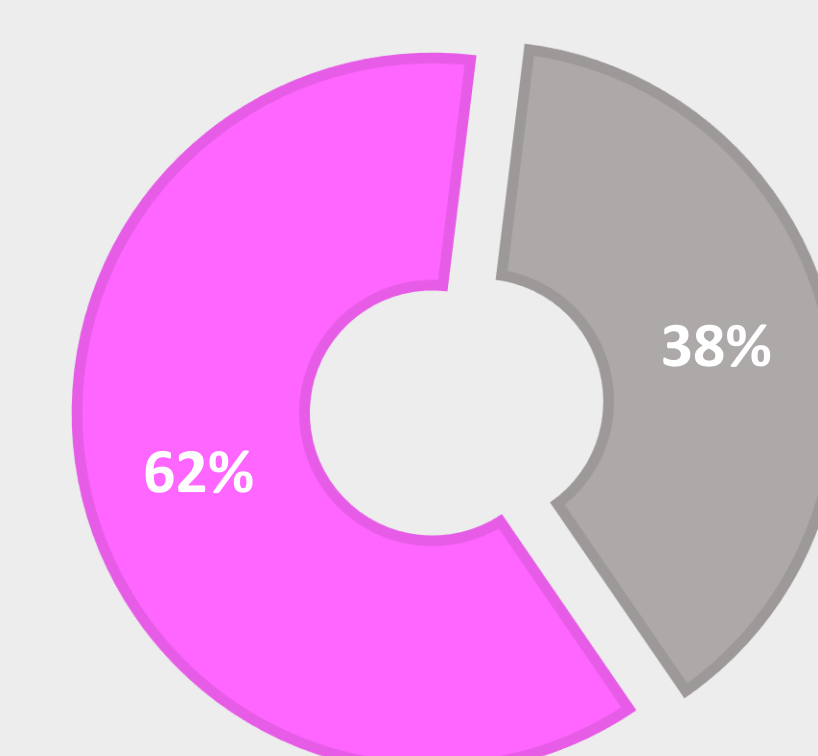
Results :

Total number of patients:	108
Mean age:	55,15 years ±13,8
Sex ratio:	0,2
Mean disease duration	11,1 years ±8,9
% of patients with joint deformities	58,1%
Mean DAS28 (ESR)	5,26 ± 1,45
Mean DAS28 (CRP)	3,4 ± 1,4
% of patients with high disease activity	52,5%
% of anemic patients	60,2
Mean hemoglobin level	11.54g/dl ±1.98
Mean ferritin level	138,5μg/l ±90,5
Mean serum iron level	14,4 μmol/l±7,8

TYPE OF ANEMIA

- Inflammatory anemia
- Iron deficiency anemia

62%   38%

Anemia Symptoms

- Asthenia: 64.8
- Dizziness: 3.7
- Dyspnea on exertion: 3.7
- Palpitations: 1.8

Association between Anemia and Other Biological Parameters	
MCV	P=0,001
MCHC	P=0,001
MCH	P=0,001
NLR	P=0,03
Platelet count	P=0,03
PMV	P=0,04
RF	P=0,03
Anti-CCP	P=0,76
ANA	P=0,16
ESR	P=0,009
CRP	P=0,02

FACTORS AND CLINICAL SIGNS ASSOCIATED WITH ANEMIA

Anemia
- Pain intensity P=0,001
- Structural damage P=0,04
- Current treatment p>0,05
- Polyarticular disease onset P=0,04
- Disease activity P=0,01
- Associated extra-articular manifestations P=0,001
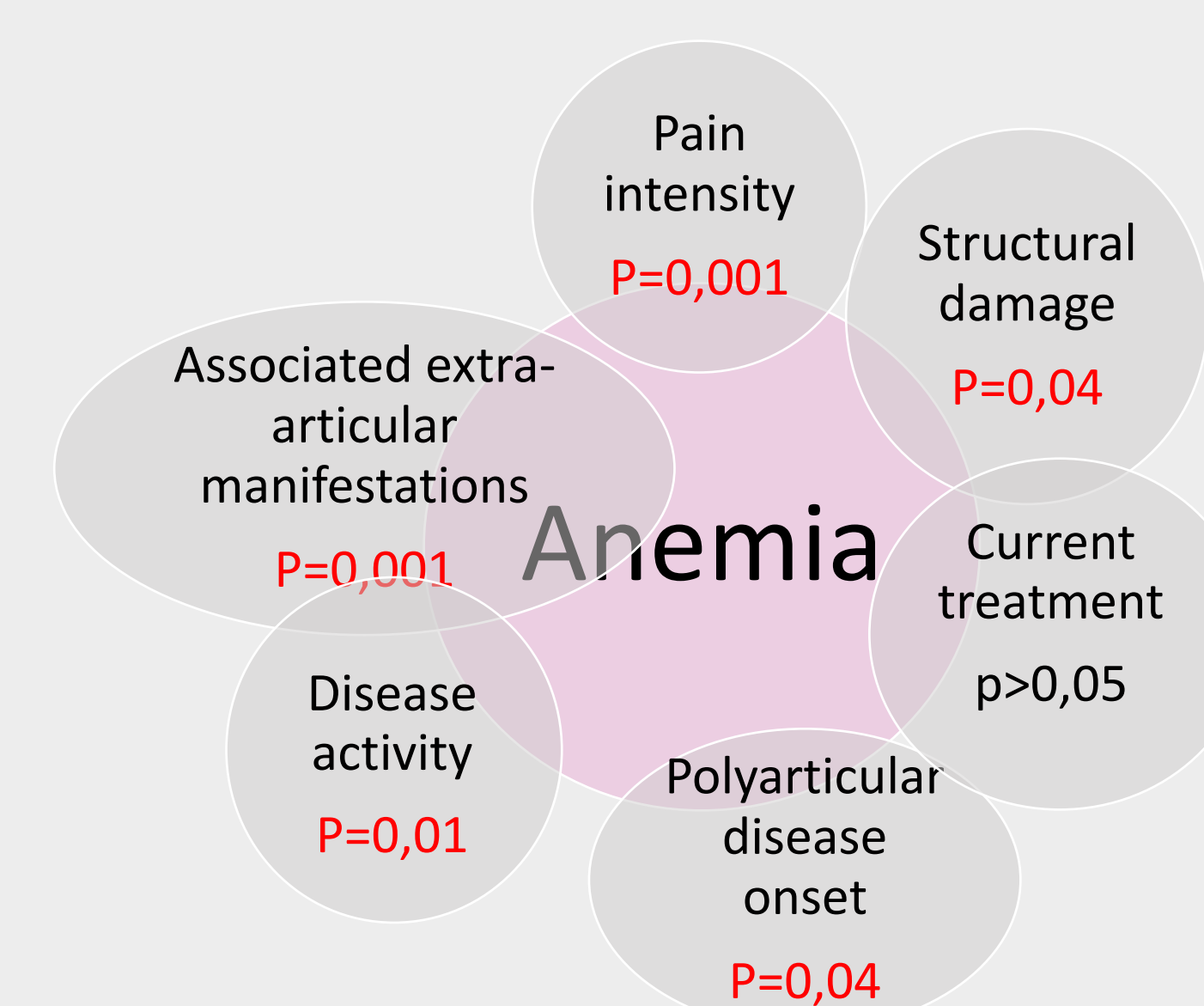
Conclusion:

Our study highlights the high prevalence of anemia in Tunisian RA patients. Associations with disease activity suggest the potential use of anemia as an indicator of inflammation in RA. Further research is needed to refine understanding and improve management strategies.
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