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CLINICAL LABORATORY

8 - 11 SEPTEMBER 2021, SOFIA

# Myelodysplastic syndromes, refractory anemia with ring sideroblasts as an important entity of myelodysplastic syndromes

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## PURPOSE / OBJECTIVES

Myelodysplastic syndromes are clinically heterogeneous disorders characterized by clonal hematopoiesis, impaired differentiation, peripheral-blood cytopenias, and a risk of progression to acute myeloid leukemia.

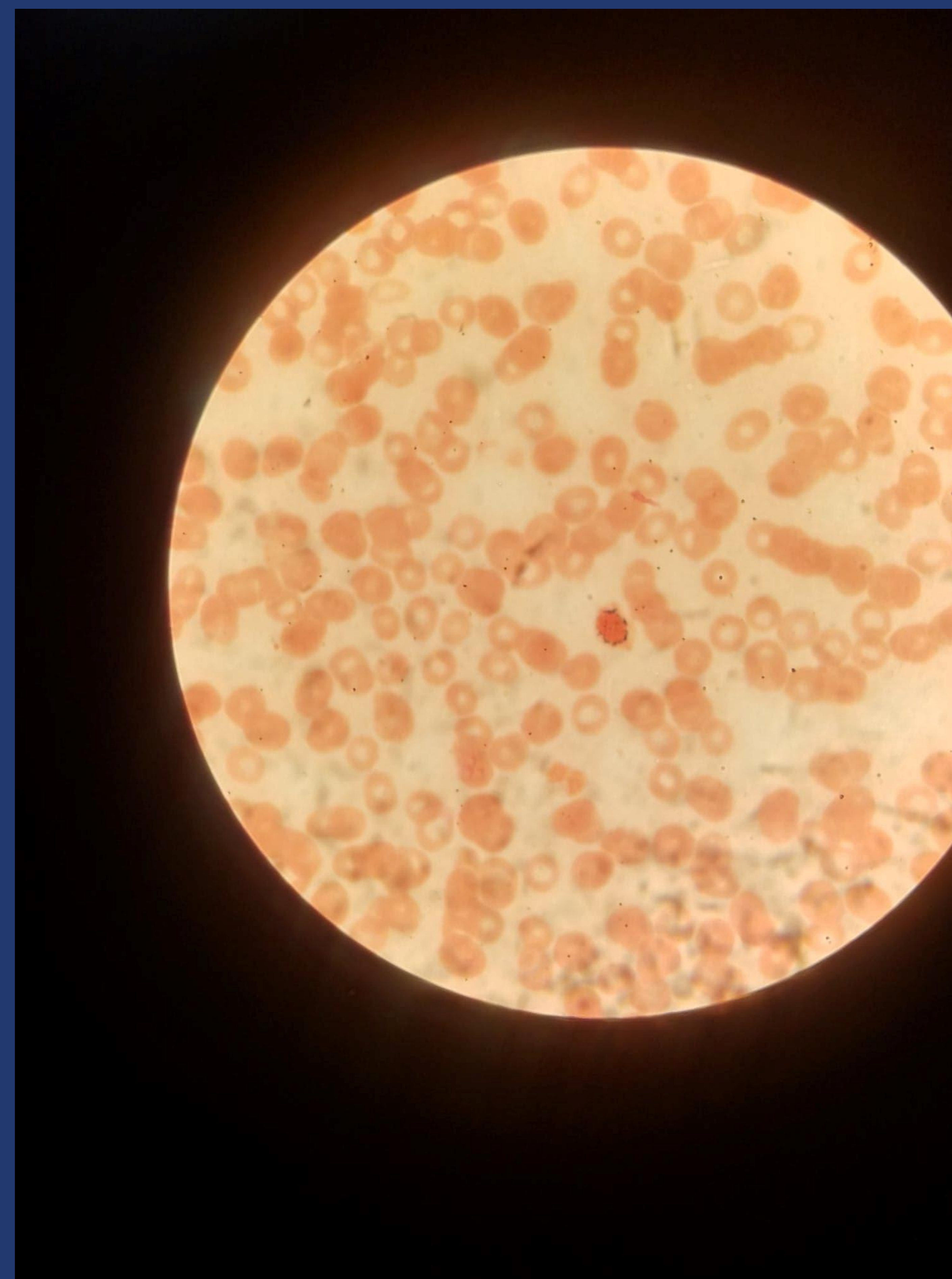
Objectives: To highlight the importance of Perls staining and morphology as an important step towards the diagnosis, classification and prognosis of MDS

## MATERIALS & METHODS

This study included 44 patients diagnosed with MDS at Tirana University Hospital Center "Mother Teresa" during a period from January 2018-October 2019. Myelograms of these patients were examined after Perls staining for ring sideroblasts.

## RESULTS

The mean age was 68 years, with female sex predominance. Examination of 44 cases revealed the presence of ring sideroblasts in 3 patients, the presence of normoblast with siderotic granules: >5% perinuclear granules covering in ring form over 1/3 of



## RESULTS

the perimeter of the nucleus, accounting for >15 % of the erythroid lineage. Erythroid displasia was prevalent.

Key words: Myelodysplastic syndrome, refractory anemia with ring sideroblasts, siderotic granules, Perls staining.

## SUMMARY/CONCLUSION

Morphology is an important step in orienting the diagnosis of myelodysplasia and as a first step in the MDS diagnostic algorithm. Perls staining is an important method in the diagnosis, classification and prognosis of RARS.