

Seronegative erosive inflammatory arthritis with Anti-NuMA-1 positivity in a Hispanic male

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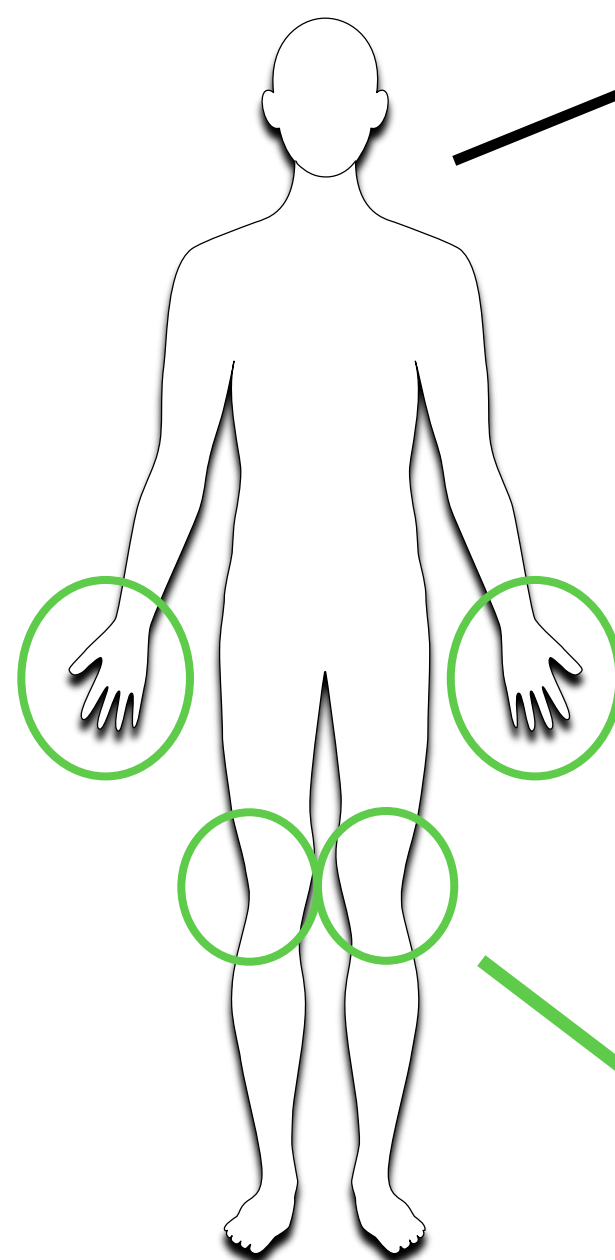
INTRODUCTION

- Anti-Nuclear Mitotic Apparatus (NuMA)-1 pattern:
 - Rare subtype of ANA
 - <1% of ANA positive patients
- Associated with:
 - Sjögren syndrome
 - Systemic lupus erythematosus
 - Rheumatoid arthritis
- Not reported in seronegative erosive inflammatory arthritis.
- We hereby present a case of a Hispanic male with family history of RA presenting with inflammatory arthritis with erosive disease and only high titers of Anti-NuMA-1 antibody with negative RF and Anti-CCP.

CASE PRESENTATION

History

59 y.o. Hispanic male



Daughter

RA → Methotrexate

- Photosensitivity
- Oral ulcers
- Skin rash
- Raynaud like symptoms
- Sicca symptoms
- Cytopenia
- Pleuropericardial effusions

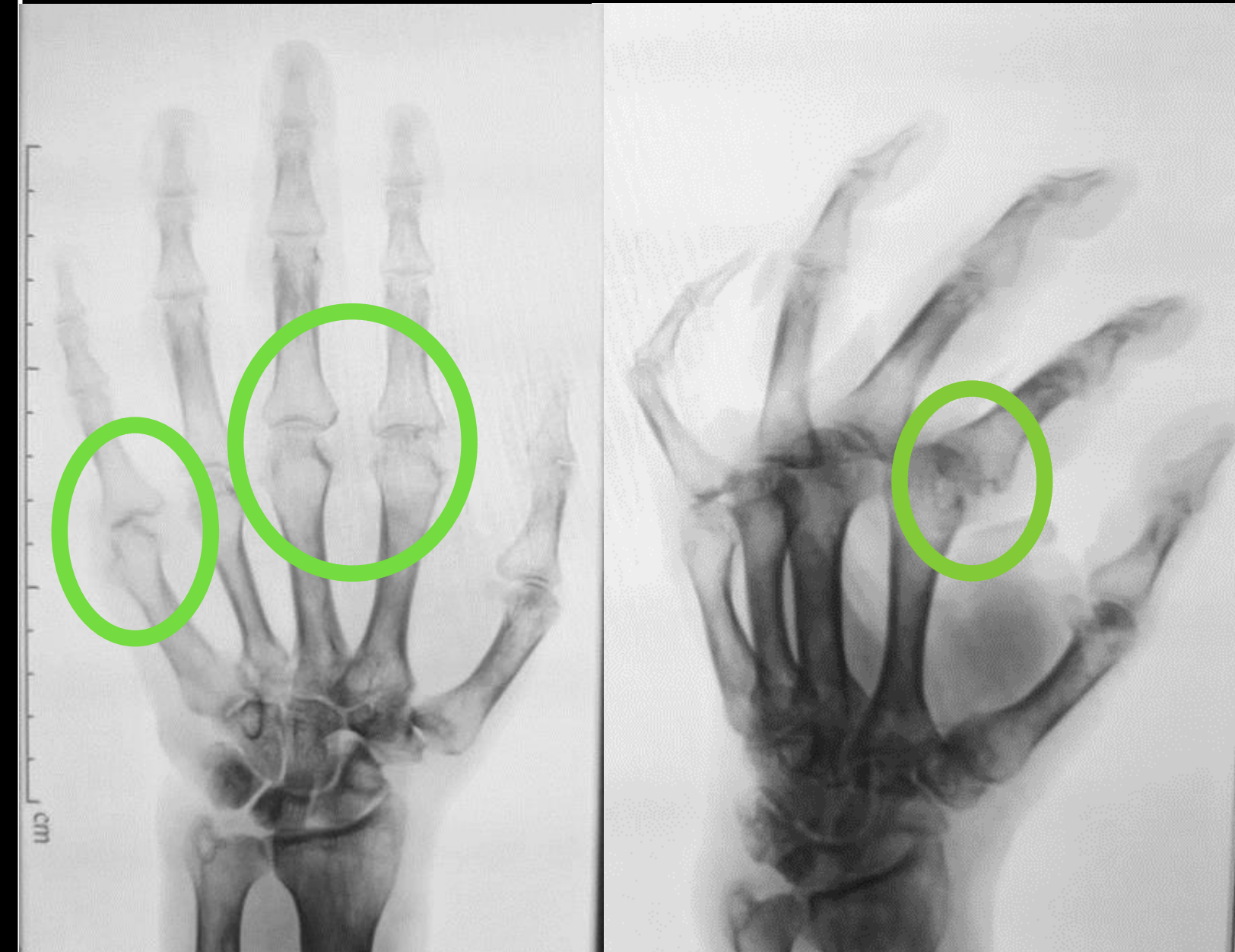
Six-month history of progressively worsening pain and swelling in bilateral hands, wrists and knees.

Labs

- Anti-NuMA-1 1:5120 (-) Rheumatoid factor (-) Anti-CCP
- Negative infectious etiology. Normal ESR and CRP.

Imaging

- PA and oblique hand x-ray:
 - Bilateral symmetrical juxta-articular osteopenia, joint space narrowing and marginal erosions.



Treatment

- Leflunomide 20mg, hydroxychloroquine 200mg and prednisone 5 mg with tapering regimen.

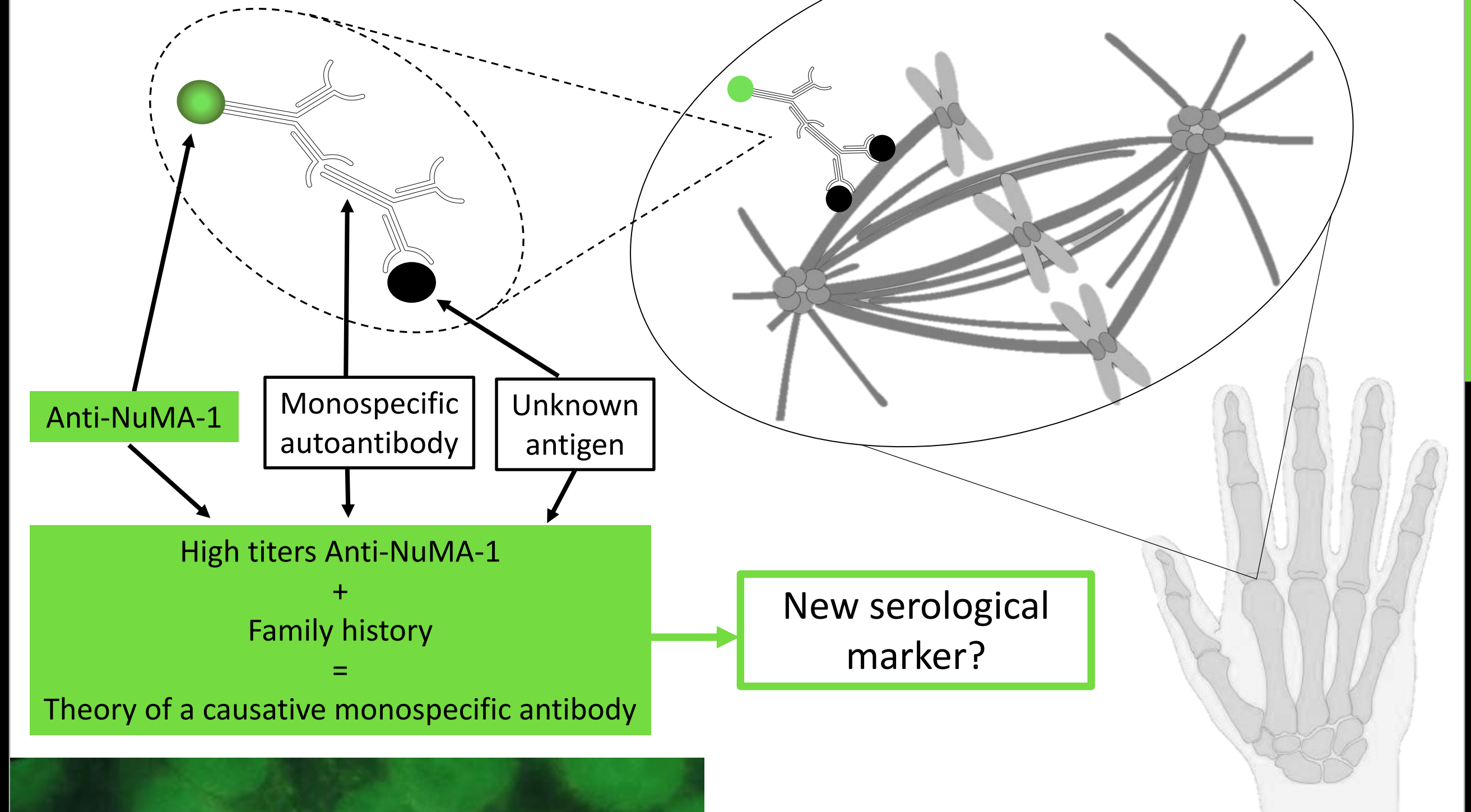
Follow-up

- One-year follow-up with clinical improvement.
- Currently inactive with leflunomide 20mg daily.

REFERENCES

- Szalat, R., Ghillani-Dalbin, P., Jallouli, M., Amoura, Z., Musset, L., Cacoub, P., & Sène, D. (2010). Anti-NuMA1 and anti-NuMA2 (anti-HsEg5) antibodies: Clinical and immunological features: A propos of 40 new cases and review of the literature. *Autoimmunity reviews*, 9(10), 652–656. <https://doi.org/10.1016/j.a>
- Betancur, J. F., Londoño, A., Estrada, V. E., Puerta, S. L., Osorno, S. M., Loaiza, A., Carmona, J. A., & Gómez-Puerta, J. A. (2018). Uncommon patterns of antinuclear antibodies recognizing mitotic spindle apparatus antigens and clinical associations. *Medicine*, 97(34), e11727. <https://doi.org/10.1097/MD.0000000000011727>

DISCUSSION



To the best of our knowledge, this is the first reported case of an association between Anti-NuMA-1 in seronegative erosive inflammatory arthritis in a Hispanic individual.

IF Image: Bonaci-Nikolic, B., Andrejevic, S., Sefik Bukilica, M., Urosevic, I., & Nikolic, M. (2006). Autoantibodies to Mitotic Apparatus: Association with Other Autoantibodies and Their Clinical Significance. *Journal of Clinical Immunology*, 26(5), 438-446. <https://doi.org/10.1007/s10875-006-9038-y>

CONCLUSION

Even though Anti-NuMA-1 pattern is rare and many aspects of it are yet to be established, this case provides evidence to support a possible link between the Hispanic population and Anti-NuMA-1 positivity in an otherwise seronegative erosive inflammatory arthritis.