Prevalence of antinuclear antibodies (ANA) among healthy individuals with different nationalities in Qatar

Prattyasha Rani Debnath, Fathima Humaira Amanullah

Supervised by: Dr. Gheyath K. Nasrallah

Biomedical Science Department, College of Health Sciences, Qatar University, Doha, Qatar

ABSTRACT

ANA can be often found in healthy individuals and in many autoimmune diseases. However, its prevalence in healthy individuals is not well investigated in Asia and MENA region. Therefore, aim of this study was to estimate the prevalence of ANA among healthy individuals of different communities in Qatar. We hypothesized that ANA prevalence will be lower in nationalities with higher prevalence of infectious diseases.

RESULTS

ANA prevalence among 2965 healthy individuals in Qatar is 0.33% and 0.74% with the borderlines.

DISCUSSION & CONCLUSION

The prevalence of ANA is 0.34% with only the positives and 0.74% with the borderline results. The ANA prevalence of the Iranian nationals residing in Qatar was the highest with 1.83% positivity. In comparison, the prevalence of ANA in Asian countries appeared to be lower than the Western countries, which supports our hypothesis of inverse relationship between the prevalence of infectious diseases and ANA. IFA revealed the speckled pattern to be the most common. We recommend using the new Dia. Pro ELISA kit for ANA screening as this kit showed high efficiency for detecting ANA in comparison to the gold standard IFA assay.

REFERENCES


INTRODUCTION

ANA are autoantibodies that attack nuclear antigens and destroy the cells. They are the hallmark of autoimmune diseases and are frequently found in patients with connective tissue diseases. Studies have been done in some countries to find the prevalence of ANA in the healthy population, however, no studies have been done in Qatar. Qatar is a multinational country with 88% of the population being majorly from the south Asia and the MENA region and no significant data about the prevalence of ANA is found in any of those countries.

METHODOLOGY

Sera was collected from a total of 2965 consented volunteer donors of age ≥18 years of different nationalities living in Qatar and attending Hamad Medical Corporation.

Diagnostic Bioprobes Srl microplate ELISA kit was used to screen ANA IgG. Positive ELISA kit results were retested using the IFA IgG for the detection of ANA nuclear staining patterns.

Analytical sensitivity of the two test methods were compared by endpoint titration.

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