

Serological Exclusion of Coeliac Disease: An Audit of Anti-Tissue Transglutaminase and Immunoglobulin A Testing

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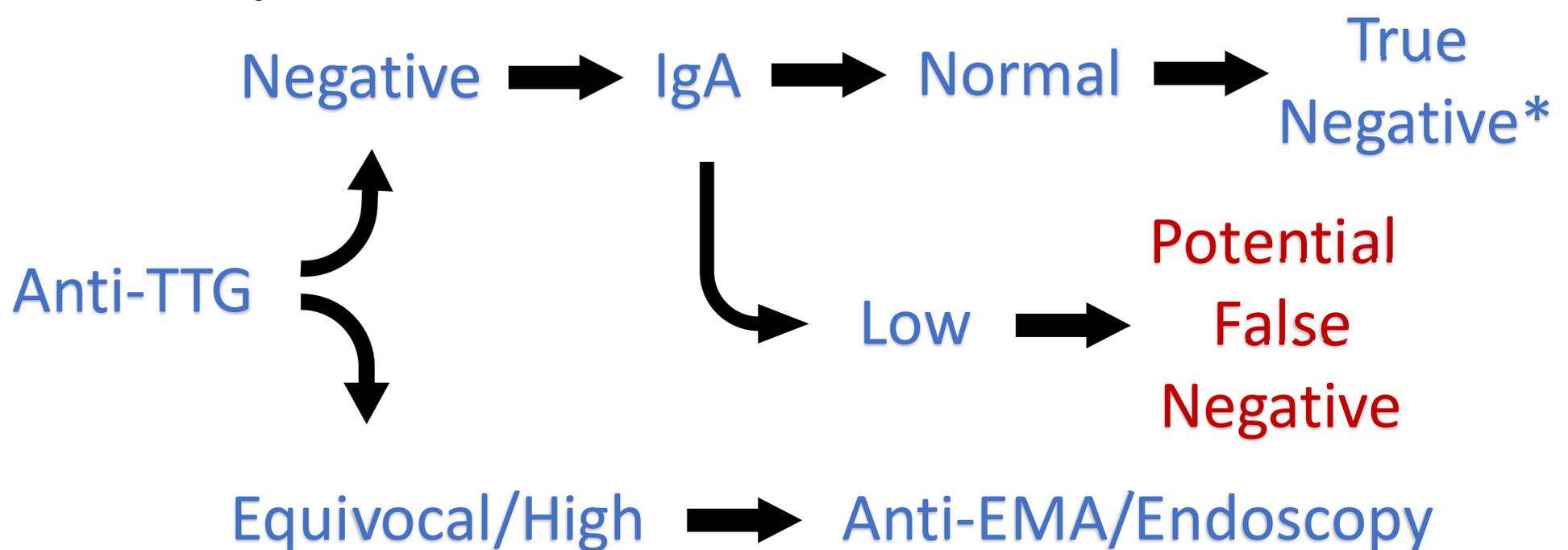
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Introduction

Coeliac disease is a hereditary autoimmune malabsorptive disease affecting approximately 1% of the Irish population. To serologically exclude the diagnosis both the HSE Laboratory Handbook (Health Service Executive and Royal college of Physicians of Ireland, 2016) and the British Society of Gastroenterology guidelines on coeliac disease (Ludvigsson *et al.*, 2014) recommend excluding Immunoglobulin A (IgA) deficiency in any patient who has a negative anti-tissue transglutaminase (TTG). Approximately 3% of patients with coeliac disease are IgA deficient (Health Service Executive and Royal college of Physicians of Ireland, 2016). Given that commonly measured anti-TTG is IgA dependent, and with such an evident risk for missing cases, false negatives need be out-ruled. We set about to determine if these guidelines were being adhered to within the catchment of University Hospital Waterford (UHW).

Methods

A random sample of 500 patients with a negative anti-TTG result tested in the first 6 months of 2019 at UHW was evaluated. Anyone with another high or equivocal result was not included. Their laboratory record was then interrogated to determine if they had ever had their IgA level checked.



*Assuming at least 6 weeks of a gluten containing diet prior to testing

Result and Conclusion

Of the 500 patients evaluated, 89 had ever had an IgA level assessed. This corresponds to 17.8% of the studied sample. Coeliac disease is mostly not being appropriately serologically excluded in this population. Anti-TTG levels are being requested without consideration for the appropriate interpretation of the results. Such a practice may lead to missed diagnoses of coeliac disease. Clinicians within the UHW catchment need to be reminded of the requirement for IgA level testing in the context of a negative anti-TTG result. This audit forms part of a series of audits on coeliac disease diagnosis at UHW (Shanahan, Sinnott and Shanahan, 2020). In other work we have found that less than 50% of patients with positive serology are proceeding to endoscopic verification (Shanahan and Shanahan, 2020b), and less than 15% of patients had a vitamin D level checked within 6 months of a positive anti-TTG result (Shanahan and Shanahan, 2020a).

References

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