When should we do the Anti-GAD antibodies and C-Peptide tests?

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Background: Research shows that Anti-GAD antibodies and C-peptide levels can be used as preliminary screening tests for differentiation of type 1 and type 2 diabetes [1]. C-peptide levels can even be beneficial in identifying clients with type 2 diabetes and marked insulin-deficiency [2].

Case presentation: This case will examine a 34-year-old female client living with obesity. The client's blood work revealed a HbA1C of 7% and elevated ACR of 7.1. Her fasted blood glucose results were mainly at target but she had great elevation of blood glucose post prandial (PC). Off note, no hypertension noted.

Management and Outcome: Even though the client fit criteria for a Type 2 diabetes diagnosis, the general assessment of the illness created some doubts. Through a collaborative approach with the Primary Care Provider and Diabetes Educator (DE), Anti-GAD antibodies and C-Peptide levels were measured and the client was referred to a diabetes specialist for further assessment. The client was diagnosed with Latent Autoimmune Diabetes in Adults (LADA) which is a slow-progressing form of autoimmune diabetes. The client was recognized to be in the "honeymoon phase" so she was started on low dose basal insulin along with metformin and GLP1A to improve weight, avoid possible adverse effects of other oral antihyperglycemic agents, and bring post prandial blood glucose levels into target range. The client is being monitored closely with flash glucose monitoring and regular follow-up.

Discussion: Early recognition of the type of diabetes and proper management can make a difference. Coordinated care and understanding the clients' needs and acting on them are crucial to managing diabetes.

Conclusion: The client was diagnosed in a timely manner and has been monitored through regular follow-up visit to ensure he diabetes is managed properly.

References

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