also be observed in people with insulin-treated type 2 diabetes.

If type 1 diabetes is assumed to be represented by a C-peptide level of less than 0.20 nmol/L, then many cases diagnosed in adult age would not be eligible for treatment with an insulin pump, given that 25% of people with classical type 1 diabetes have higher C-peptide levels when tested 6-9 years postdiagnosis.37 When random C-peptide is high at 3 years post diagnosis, this usually is consistent with a diagnosis of type 2 diabetes, but it should be noted that the mean fasting C-peptide in classical type 1 diabetes in adults at 5 years post diagnosis was 0.17 nmol/L.[38] By using only C-peptide to differentiate between autoimmune diabetes and type 2 diabetes, without measuring diabetes-associated autoantibodies, sensitivity is lost at the expense of a gain in specificity.

CONCLUSION

The review article suggests that blood C-peptide levels are a valuable biomarker for distinguishing between diabetics and healthy controls, as well as for diagnosing Type 1 and Type 2 diabetes mellitus. The markedly low levels of C-peptide in Type 1 DM patients reflect severe beta-cell failure, whereas intermediate levels in Type 2 DM patients show some insulin secretory capacity amongst insulin resistance. Because of its therapeutic value, cost-effectiveness, and diagnostic accuracy, routine testing of C peptide levels should be considered in the initial evaluation and ongoing management of patients with suspected diabetes mellitus. This approach can assist guide treatment decisions, improve patient classification, and potentially improve therapeutic outcomes in healthcare settings with limited resources.

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