

# A Correlative Study of RDW and PDW with HbA1c in Type 2 Diabetic Patients

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**Abstract:** *Patients with type 2 diabetes were used in the study. HbA1c, PDW, and RDW are the variables studied. Diabetes patients' RDW and PDW are significantly higher than those of healthy individuals, and they are especially higher in cases of uncontrolled glycemia. Patients with type 2 diabetes in this study whose HbA1c value was more than 7% increased their RDW and PDW, and there was a positive link between RDW and HbA1c*

**Keywords:** type 2 diabetes, PDW, RDW, HbA1c.

## 1. Introduction

Glycated haemoglobin is referred to by the acronym HbA1c. It begins when blood glucose becomes glycated and combines with haemoglobin, a protein found in red blood cells that transports oxygen throughout the body. Clinicians can gain a general understanding of our average blood sugar levels over the course of several weeks or months by monitoring HbA1c.

Type 2 diabetes mellitus (formerly called adult onset, NIDDM, or type 2). It is characterized by insulin resistance in peripheral tissue and an insulin secretory defect of the beta cell. This is the most common form of diabetes mellitus and is highly associated with a family history of diabetes, older age, obesity and lack of exercise.

Retrospective investigations on RDW and HbA1c were undertaken by Lippi et al. who found that patients with RDW had considerably higher HbA1c levels.

Veeranncce et al. reported that RDW significantly explained HbA1c, raising the prospect that persistent hyperglycemia may have mediated the relationship between RDW and HbA1c.

## 2. Materials and Methods

Study was conducted on patients with type 2 diabetes of both sexes with HbA1c value  $\geq 6.5$ . Parameters analysed was PDW, RDW and assessed for their correlation.

## 3. Conclusion

It was found that RDW and PDW are significantly higher in diabetic patients than healthy subject and is particularly higher in uncontrolled glycaemia. In this study 64% of type 2 diabetic patients increase RDW and 54% of type 2 diabetic patients are increase PDW, whose HbA1c value was more than 7%. RDW positively correlated (0.95) with HbA1c.s

## References

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