

**HAEMOGLOBIN A1C (HBA1C) IN NONDIABETIC VASCULAR PATIENTS IS AN
INDEPENDENT RISK FACTOR AND PREDICTOR OF ADVERSE OUTCOME.
A COHORT STUDY.**

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Objectives: Plasma HBA1C levels reflect ambient glycemic control over the preceding 2 to 3 months. Elevated HBA1C leads to an adverse outcome following cardiovascular interventions.

Materials & Methods: Our aim is to evaluate if elevated HBA1c is an independent risk factor. Our primary endpoint is postoperative morbidity and mortality and secondary endpoint is length of hospital stay in a cohort of non-diabetic patients undergoing vascular surgical procedures.

Baseline laboratory studies, including plasma HBA1c, were obtained prospectively from 158 consecutive patients prior to undergoing vascular surgical procedures. Patients were stratified into 2 groups according to whether their plasma HBA1c level was $\leq 6.0\%$ (normal, group 1) or $>6.0\%$ (abnormal, group 2). Two tailed t-test and multivariate analysis was performed for statistical analysis.

Results: Of the 158 patients studied, 107 were non-diabetic. The mean age was 72 years and 65% were male. Abnormal HBA1c levels were found in 45.3% of non-diabetic patients. Non-diabetic patients with an abnormal HBA1c ($>6.0\%$) had a significantly longer length of hospital stay (33% vs. 12%, $p = 0.004$) higher complication rate (41% vs. 23%, $p = 0.03$) and postoperative mortality (5% vs. 1%, $p = 0.03$) compared with non-diabetic patients with HBA1c levels $<6\%$. Multivariate analysis showed that an HBA1c level of 6.1 – 7% was a significant independent predictor of increased length of stay, stroke, myocardial infarction, amputations and mortality after vascular surgical procedures in non-diabetic patients.

Conclusion: An abnormal HBA1c level may adversely affect the outcome in non-diabetic vascular patients. Tighter diet control and pharmacological manipulation are mandatory.

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