

## DYNAMIC CHANGES OF SERUM VASCULAR ENDOTHELIAL GROWTH FACTOR AFTER SURGICAL RESECTION OF HEPATOCELLULAR CARCINOMA AND ITS APPLICATION IN RECURRENCE MONITORING

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**Background** : Hepatocellular carcinoma (HCC) is well-known as a frequent recurrence tumor following surgical resection. Vascular endothelial growth factor (VEGF) is related to HCC pathogenesis in many ways, but its dynamic changes and potential as a recurrence biomarker has not been well studied. This study investigated post-resection changes in serum VEGF and its association with early recurrence.

**Methods** : Twenty-one HCC patients undergoing surgical resection were followed. Their serum VEGF levels were measured at preoperative and at 3, 6, and 12 months after surgery. Serum VEGF was quantified using the Immunosorbent assay. Clinical follow-up and imaging were used to monitor recurrence.

**Results** : Total eight patients experienced recurrence. Baseline serum VEGF levels were shown to be elevated in the recurrence group; but did not reach statistically significant ( $p = 0.096$ ). Following resection, VEGF levels decreased in both groups, with a more pronounced decline observed at 3 months after surgery in the recurrence group ( $p < 0.05$ ).

**Conclusions** : Although discrete VEGF levels might not be able to distinguish recurrence status, its dynamic may have the potential to support current practices. Postoperative changes, particularly reduction observed at 3 months, might aid in monitoring recurrence risk after surgical resection. However, further studies with larger cohorts are recommended.

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