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Successful Outcome of Primary Aldosteronism Following Adrenalectomy in Comparison with Medical Management

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Objectives: Primary aldosteronism is a not uncommon and treatable cause of secondary hypertension and has been associated with heart, kidneys, brain, and vascular system; Medical or surgical treatment is effective at ceasing or reducing adverse effects of high levels of aldosterone. We aimed to evaluate outcomes between essential hypertension and primary aldosteronism participants undergoing different management.

Materials and Methods: A total of 13,495 patients were enrolled in the study. 2699 adults with primary aldosteronism were included; an estimated 657 adults receiving adrenalectomy and 2042 patients taking mineralocorticoid receptor antagonists. With respect to the assessment of the model calibration between end stage renal disease and the duration of hypertension eligible for treatment according to mineralocorticoid receptor antagonists and adrenalectomy in comparison with essential hypertension, Cox proportional hazard model were applied.

Result: Our study showed that decreased 22% of mortality and 46% of end stage renal disease patients receiving adrenalectomy with the expected proportionate reduction in numbers of essential hypertension individuals compared with primary aldosteronism. Cox proportional hazard model showed more cumulative proportion to end stage renal disease for those with taking mineralocorticoid receptor antagonists than receiving adrenalectomy in comparison with essential hypertension was conducted.

Conclusion: Adrenalectomy is an invasive and safe technique that provides some better long-term outcomes for appropriate candidates in comparison between patients with primary aldosteronism undergoing mineralocorticoid receptor antagonists and those with essential hypertension, particularly progression to end stage renal disease in those patients.