Each baseline mean eGFR of patients with PA and EH indicated 91.2 ± 74.5 and 87.1 ± 19.7 mL/min/1.73m$^2$ and statistically insignificant differences(P = 0.1688) as well as baseline SBP(P = 0.5403) and DBP(P = 0.8691). However, in spite of treatment of PA and controlled BP, mean eGFR of PA patients was lower than one of EH patients and its difference was statistically significant showing 66.5 ± 14.2 and 94.6 ± 195.9 mL/min/1.73m$^2$ (P < .0001) at 2~ 5 years, 52.4 ± 17.9 and 77.6 ± 20.6 mL/min/1.73m$^2$ (P < 0.0004) at 6~10 years. Baseline mean eGFR of PA with normokalemia and hypokalemia respectively were 77.7 ± 11.6 and 98.9 ± 92.5 mL/min/1.73m$^2$ (P = 0.0269). Baseline mean eGFR of non-confirmed PA and EH were 82.5 ± 13.2 and 88.4 ± 21.1 mL/min/1.73m$^2$ (P = 0.0240). Although baseline mean eGFR of PA with surgical treatment was better than one with medical treatment, it was reversal after 2~5 years indicating mean eGFR of PA patients treated with operation, 62.9 ± 16.1 mL/min/1.73m$^2$ and one treated with spironolactone, 70.5 ± 12.6 mL/min/1.73m$^2$ (P = 0.0010). Conclusions: This study support PA has worse effects on renal function than EH. PA is frequently unsuspected and undiagnosed because it hardly shows symptoms and signs. Many cases do not reveal main characteristics such as uncontrolled HTN and hypokalemia, so that patients with PA maybe have longstanding exposure to risk of CKD. Therefore it is necessary to do case detection test and rule out PA in initial hypertensive patients. In addition, more longitudinal study and research should be performed to decide personalized and adequate treatments for PA patients.

# Diabetes Mellitus and Glucose Metabolism

## DIABETES DIAGNOSIS, TREATMENT AND COMPLICATIONS

### *Improved Family Medicine Resident Diabetes Care Through Participation in a Diabetes Clinic*

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**SUN-LB116**

As the population ages and the prevalence of diabetes increases, the demand for endocrinology services, especially in underserved areas, will continue to exceed availability. Primary care residency training programs must prepare residents to care for high risk patients with diabetes who cannot access specialists. We hypothesized that resident participation in an inter-professional diabetes clinic run by primary care physicians would lead to improved diabetes care in resident patient panels.

A diabetes clinic was created in an existing primary care practice at a Federally Qualified Health Center in Eastern Kentucky. All non-pregnant, adult, Type II diabetes patients with a HgbA1C of 8.0% or greater were invited to participate in the clinic. Initial visits included evaluations by a dentist, mental health counselor, social worker, nutritionist, primary care provider, and pharmacist. Four first-year and four second-year family medicine residents rotated through the diabetes clinic and followed the patients as they saw each member of the health care team. On follow-up visits, a resident served as the primary care provider for each patient and participated in post-clinic meetings of the entire healthcare team. Resident patient charts were reviewed 3 months prior to the year-long intervention and data collected was compared to resident patient charts 3 months following the intervention.

Ninety patients served as the pre-intervention sample and 108 were in the post-intervention sample. Chi-square analysis showed a statistically significant increase in patients with A1C less than 8.0% pre (57.7%) to post (71.3%) p=0.0468. Overall, there were significant increases in all health-associated behaviors. Patients receiving eye exams increased from pre (29%) to post (66%) intervention significantly; z=-5.2, P<.001. Patients receiving a urine microalbumin test increased from pre (61%) to post (82%) intervention; z=-3.2, P<.001. Patients receiving dietary counseling increased from pre (54%) to post (79%) intervention; z=-3.6, P<.001. Patients receiving foot exams increased from pre (34%) to post (48%) intervention, z=-1.9; p=.03.

Resident involvement in a multidisciplinary diabetes clinic led by primary care physicians resulted in a statistically significant increase in HgbA1Cs < 8 among patients in their regular clinic and resulted in a statistically significant increase in their diabetic patients receiving eye exams, dietary counseling, foot exams, and urine microalbumin tests. This study suggests that teaching family medicine residents important diabetes care skills with an interprofessional team approach through the use of a diabetes clinic may be superior to standard educational practices.

# Thyroid

## THYROID NEOPLASIA AND CANCER

### *Stratifying the Risk of Malignancy in Indeterminate Thyroid Nodules*

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BackgroundThyroid cancer is the most common endocrine cancer globally, and accounts for 3.4% of all new cancer cases in the US. Although several clinical guidelines to detect/manage thyroid nodules are available, a great deal of controversy still exists around the optimal approach for diagnosis. Approximately 20-30% of cytology results from thyroid fine-needle aspiration (FNA) fall into one of three indeterminate diagnostic categories. In recent years, a number of molecular and gene mutation diagnostic tests have been developed to diagnose the indeterminate thyroid nodules in FNA specimens. However, nearly half of patients recommended for surgery based on these tests were found to have a benign nodule. Therefore, there is a need for a more accurate predictive and prognostic test for thyroid cancer. In case of Euthyroid Hashimoto Thyroiditis condition (EHT), where patient required a partial thyroxin replacement dose, having about 48% risk of thyroid cancer. However, there is still not a very accurate predictive marker for early detection of thyroid cancer in EHT. Invention