

## 10th Conference on Health Care of the Chinese in North America



### **Incidence of Diabetes Mellitus, Diabetic Eye Examinations and Risk Factors for Diabetic Retinopathy in a Population of Chinese-American HMO Enrollees**

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In a population of 5812 Chinese-American enrollees of a San Francisco community HMO, 129 patients were found to have diabetes mellitus. This represents an incidence of diabetes of 2.21%, comparable to the expected national average of 2.5-3% of the general population. Of the 129 diabetic patients over a two-year period, an average of 78 eye examinations were performed each year. This rate of 61% is significantly higher than results from previous studies, which have ranged from 35-45% each year. Among the patients who underwent eye examinations, 19% were diagnosed with diabetic retinopathy. Even in asymptomatic patients, the yield of diagnosing diabetic retinopathy was quite productive, at 8%.

Of the risk factors found to be associated with diabetic retinopathy, patient age and the presence of hypertension seemed to be strongly correlated with the presence of retinopathy. The mean age of patients with retinopathy was 62, while that of patients with no retinopathy detected was 57 ( $p=0.01$ ). In addition, 87% of patients with retinopathy suffered from hypertension, while only 46% of patients without retinopathy were hypertensive ( $p=0.03$ ).

The mean duration of diabetes in patients with retinopathy was 6.1 years compared with 4.8 years in patients with no retinopathy ( $p=0.2$ ). Though not statistically significant, there does appear to be some correlation. Similarly, while only one in four patients with no retinopathy had proteinuria, 50% of patients with retinopathy showed the condition ( $p=0.11$ ). Because of a relatively small sample size, we were not able to demonstrate any relationship between the incidence of diabetic retinopathy and the level of diabetic control.

In this population of Chinese-American diabetic patients, annual eye examinations yield a significant rate of detecting diabetic retinopathy, thus increasing opportunities for medical intervention to save vision.