



Service Priorities and Programmes
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Blood pressure control and retinal changes among elderly in a Community Health Centre in Hong Kong

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Introduction

Hypertension is becoming prevalent in the population and the prevalence increased with age. The Population Health Survey of the Department of Health revealed that 66.3% of Hong Kong people aged 65-74 had increased blood pressure (BP) and a high proportion of them were unaware of the condition. Retinal vascular changes could appear in those with or without hypertension diagnosed.

Objectives

To investigate (1) retinal vascular changes in patients with and without hypertension; (2) the number of patients with high BP who could be identified by routinely blood pressure measurement in a primary eye care center in the community.

Methodology

Eye examinations were delivered by student and registered optometrists in The Integrative Community Health Centre, ICHC (a satellite clinic of the School of Optometry, The Hong Kong Polytechnic University). The eye examination included visual function assessment, refraction and ocular health assessment. All patients were aged 60 or above. Automated blood pressure measurements were made during eye examination. High BP was defined as 2 repeated measurements with systolic BP ≥ 140 mmHg or diastolic BP ≥ 90 mmHg. Keith-Wagener-Barker system was used to classify retinal vascular changes.

Result

From May 2016 to November 2016, 650 elderly received eye examinations and blood pressure measurements in the ICHC. The mean age was 70.5 ± 6.4 years. Forty-one percent (269) reported to have hypertension which was similar to the report by Department of Health. Nearly half of them did not have eye examination within the last

5 years. Thirty-eight percent (103) of them previously diagnosed with hypertension still had high BP during the visit and 68% (70) of them showed hypertensive retinal changes. Even with good BP control (166), 41% (68) still demonstrated hypertensive retinopathy. Among 381 patients without hypertension history, 24% (92) were unaware of their high BP revealed during the visit and 9 of them had retinal hemorrhages. Measuring blood pressure in primary care setting is easy and useful. One from every 4 elderly without hypertension history had high BP in this study. Presence of hypertensive retinopathy in good BP control patients may indicate the need to have a more stringent blood pressure goal. Regular eye examination could help monitor retinal vascular changes and prevent other sight-threatening vascular complications.