A Survey to Evaluate the Prevalence of Foot Ulcer Development in Community-dwelling Diabetic Patients in Hong Kong

Law SYC(1), Li YC(2), Cheung K(2), Wong Y(2), Chan LH(2), Lau CP(1), Leung KM(1), Law WT(1), Chung DKW(1), Chan K(2)
(1) Department of Prosthetic & Orthotics, Queen Elizabeth Hospital, (2) Department of Family Medicine and General Out-patient Clinic, Kowloon Central Cluster

Keywords:
Diabetes Mellitus
Foot ulcer
Prevention
Community
GOPC
GOPC

Introduction
Diabetes mellitus (DM) affect about 10% of the population in Hong Kong. Blindness, stroke, limb amputations, kidney and heart diseases are serious complications in patient with poor diabetic control.

Objectives
A survey to evaluate the prevalence of foot ulcers development for Type-II DM patients has been launched in the community general out-patient clinic in Hong Kong

Methodology
Community-dwelling patients, who follow-up in the RAMP-DM program, with age 40-70 years, no history or active ulceration, and no amputation history were invited to attend a DM footwear education and foot assessment session at YMT/GOPCs of KCC. History of stroke or systematic disease that affect sensory function of the foot and ankle region other than neuropathy were excluded. Six months after the first assessment, patients were contacted by phone for recent history of ulceration.

Result
From August 2013 to February 2014, 503 subjects were recruited with mean age 58 years, BMI 26.3 kg/m2, HbA1c 7.0%, fasting glucose 7.3%, and EGFR 93.2%. In six-months, 4 subjects reported sudden onset of foot ulcers. Prevalence of foot ulcer development in community-dwelling Type-II diabetic patients is 0.8%. Current
prospective study demonstrated a relatively low incidence of foot ulceration development which comparable to previously prospective studies that reported an annual incidence of 0.2% to 8.3%. (Kastenbauer T et al, 2001; Ramsey SD et al, 1999; Abbott CA et al, 1998; Coppini DV et al, 1998; Young MJ et al, 1994) RAMP-DM program achieved a successful safety net function for DM foot ulcer prevention in the community. On top of the regular risk screening, three of the four subjects who developed foot wound attended YMT GOPC without delay. One subject attended private practice with antibiotic prescribed for her foot wound. Admission and attendance to A&E can be minimized. Also, those foot ulcers/wounds were able to be controlled with medications and regular dressings. Activities to enhance the awareness and a more effective approach in screening and education would make a lower incidence rate of foot ulcer in the community possible. Acknowledge to the support from KCC research grant 2012/13