

冠心病事件危險預測之新知

New Advance in Risk Prognostication for Coronary Event

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摘要

行政院衛生署 2004 年台灣地區死因統計報告首次顯示心臟病與腦血管疾病互調，心臟病躍居為第二位，心臟病中最多的是冠心病。發生冠心病事件之絕對危險分為高、中及低度，10 年發生冠心病事件的危險預測分別是 $> 20\%$ ， $10-20\%$ 及 $< 10\%$ 。危險級別是依據性別分析各該病人之 5 項傳統危險因子，包括年齡、總膽固醇值、高密度脂蛋白膽固醇值、吸煙及收縮期血壓值，對照佛來明罕危險點值表中的各該點值，加總組成該病人之佛來明罕危險分數(Framingham risk score; FRS)來分級的。高危險群包括已有冠心病；已有其它臨床動脈硬化疾病，包括周邊動脈疾病，腹主動脈瘤及有（或無）症狀之頸動脈狹窄 $\geq 50\%$ 者；糖尿病；及雖沒伴有任何上述動脈硬化疾病及糖尿病，但因已有多項傳統危險因子，其 FRS 已達高危險群者。很多受檢者，其 FRS 雖仍屬中危險群，但因合併有新危險因子，最終評估歸屬高危險群。新危險因子近來最受注目的是亞臨床動脈硬化疾病之存在。亞臨床動脈硬化疾病測定的方法分為非畫像及畫像。非畫像檢查有(1)以履帶式運動心電圖檢查心肌缺血：陽性結果可使中低危險者改歸類為高危險群；(2)以周邊血管掃描儀測量踝肱血壓指數(ankle-brachial index; ABI)。ABI <0.9 表示已有周邊動脈疾病而需改歸類為高危險群。畫像檢查是直接測量亞臨床之動脈硬化斑塊負荷量，分為：(1)以電子束或多偵測電腦斷層掃描儀(Electron beam or multidetector computed tomography [EBCT or MDCT])測量冠狀動脈鈣化分數(coronary artery calcium score; CACS)。CACS 可用來修飾 FRS，使仍屬中低危險群之受檢者，改歸類為高危險群，而 CACS 本身可直接預測未來之心病事件發生率；(2)以頸動脈超音波掃描儀測量內膜中膜厚度，此值可把已有多重危險因子者改分類為高危險群，但 FRS 並沒有它把列入考量。日常診療對各級危險群之處置重點包括以危險等級及低密度脂蛋白膽固醇值決定降血脂藥之使用與否、以危險等級決定阿斯匹靈之使用與否、禁煙及體能活動達成預防目標。

Abstract

According to 2004 Report of Taiwan Area Main Causes of Death Statistics from the Department of Health, Taiwan; heart disease, the first time, substituted cerebrovascular disease as the second cause of deaths in Taiwan area. The majority of heart disease is coronary heart disease (CHD). Absolute risk of coronary event can be divided into three categories: high, intermediate, and lower risk with a 10-year risk for myocardial infarction (nonfatal+fatal) and sudden death >20%, 10-20% and <10%, respectively. The absolute risk can be estimated by sum of Framingham risk score (FRS) using the Framingham risk table. Patients at high risk are: clinical CHD, noncoronary forms of clinical atherosclerotic disease include those with peripheral arterial disease, abdominal aortic aneurysm, symptomatic and asymptomatic carotid artery disease with carotid narrowing $\geq 50\%$, diabetes and high-risk patients estimated by FRS who have no above clinical manifestation of atherosclerosis and diabetes. Many subjects will be found to be at intermediate-risk FRS. Some of these patients will be reclassified as high risk because of associated emerging risk factors. Subclinical atherosclerotic disease is one of emerging risk factors. Subclinical atherosclerotic disease can be identified by non-imaging and imaging techniques. Non-imaging methods included: (1) Exercise treadmill testing (ETT) identifies patients whose coronary atherosclerosis has advanced sufficiently to produce myocardial ischemia with exercise. Positive ETT identifies a high-risk patients; (2) Ankle-brachial index (ABI) detects peripheral artery disease (PAD). ABI <0.9 indicates a PAD and the risk level can be raised to high-risk. Imaging methods are tests for detecting atherosclerotic plaque burden, included: (1) Electron beam or multidetector computed tomography can be used to identify coronary calcification, patients with intermediate risk FRS plus a coronary artery calcium score (CACS) > the 75th percentile for age and gender may be reclassified as high-risk. The exceedingly low coronary event rate in subjects with a CACS <100 is consistent with angiographic studies indicating a comparably low likelihood of significant CAD, i.e., stenosis < 50% and an extremely low incidence of stress-induced myocardial ischemia (<1%) in such individuals. The increasing number of coronary events with an ever-increasing CACS is also consistent with the dramatic increase in the incidence of stress-induced myocardial ischemia when CACS are >100, and particularly >400; (2) Carotid sonography, which measures the intima-media thickness could be used to elevate some patients with multiple risk factors to the high-risk level. Risk factors for which interventions have Several interventions proved to lower risk of coronary events are as follows: lowering LDL-C reduces risk for coronary events and statins head the list of LDL-C lowering drugs. Goals of therapy are dependent on level of LDL-C and risk categories. Use of aspirin is dependent on risk level. Smoking cessation and physical activity are for all

primary and secondary prevention.