



To News Editor
For Immediate Release

13 January 2009

**CUHK Proves Using Drug-eluting Stent
in Treatment of Coronary Heart Disease Reduces Relapse and is Cost-effective**

Coronary heart disease (CHD) is a major health problem worldwide, and has been the second leading cause of death in Hong Kong since 1960s. CHD is caused by the narrowing of arteries that supply blood to the heart (called coronary arteries) which will result in angina and even heart attack. Currently the main treatment includes the use of drugs and catheter-based dilatation of the narrowed coronary artery, known as percutaneous coronary intervention (PCI).

In Hong Kong, over 5,000 PCI procedures are performed yearly. The procedure involves the inflation of balloon to open up the narrowed coronary artery followed by stent placement. Traditionally bare metal stents (BMS) were used during PCI. In the last few years, a new stent platform, called drug-eluting stents (DES), were increasingly used aiming at reducing the recurrence of coronary artery narrowing. However, whether the use of DES is cost-effective in public hospitals in Hong Kong remains controversial. The Hong Kong government only provides subsidy for the use of BMS for patients with financial difficulty. At present, there is no data comparing the treatment efficacy and cost-effectiveness of the two types of stents in Chinese population.

The Division of Cardiology of the Department of Medicine and Therapeutics, School of Pharmacy and Institute of Vascular Medicine at The Chinese University of Hong Kong conducted a study led by Professor Cheuk-man Yu and Professor Vivian Wing-yan Lee to compare treatment outcome and evaluate the cost-effectiveness of BMS and DES placements in CHD patients. Between January and December 2005, 558 patients who had undergone PCI at the Prince of Wales Hospital were studied and followed for one year. Among them, 300 (54%) patients received DES and 258 (46%) patients received BMS. The study observed that after one year, patients received DES had a remarkably lower mortality of 0.3% than patients received BMS (4.7%). Moreover, the need for revascularization is significantly lower in patients with DES (1.7%) when compared with patients with BMS (5%). Although the mean procedural cost for PCI was higher for using DES (HK\$46,913) than BMS (HK\$31,991), the costs of index hospitalization, follow up and repeated PCI were higher in patients with BMS which offset the extra procedural cost. As a result, the overall cost difference in one year was only HK\$2,749 in excess in patients who received DES.

Therefore, our study demonstrated for the first time that the use of DES in the public hospital setting in Hong Kong is highly cost-effective. It not only reduces the need for repeated PCI procedure in the next 12 months, but also the mortality rate. Therefore, we suggest that for those underprivileged patients who need PCI for management of CHD, the government should consider covering the cost of not only BMS, but also DES.



致新聞編輯
請即發放

中大證實使用滲藥性支架治療冠心病可減低復發率及具成本效益

冠心病在世界各地是主要的健康問題。自六十年代起，它一直是本港的第二號殺手。冠心病的成因是輸送血液至心臟的動脈血管(冠狀動脈)收窄，繼而引發心絞痛甚至心臟病突發。現今治療冠心病主要倚靠藥物和冠狀動脈血管成形術(俗稱「通波仔」)。

本港每年進行超過五千宗冠狀動脈血管成形術，此項治療是利用心導管探入冠狀動脈內，藉著導管前端的氣球膨脹，以擴張已收窄的冠狀動脈，再置放支架以維持血管暢通。一直以來，冠狀動脈血管成形術都是使用金屬支架。及至近年，一種新的支架——滲藥性支架，漸漸廣受採用，它能減低冠狀動脈再次收窄的機會。然而，使用滲藥性支架在本港公立醫院是否符合成本效益仍具爭議，香港特區政府只為有財政困難的患者提供資助以置放金屬支架。直至現時，本港並沒有使用兩種支架的治療果效及成本效益的數據，以作比較。

有見及此，香港中文大學內科及藥物治療學系心臟科、藥劑學院及心腦血管醫學研究所在余卓文教授和李詠恩教授的帶領下合作進行了一項研究，以比較冠心病患者使用金屬支架及滲藥性支架的治療成效及評估兩者的成本效益。該研究紀錄了 558 名於 2005 年 1 月至 12 月期間，在沙田威爾斯親王醫院接受冠狀動脈血管成形術的患者資料，並進行一年的術後跟進。當中 300 名(54%)患者接受置放滲藥性支架，另外 258 名(46%)患者則接受置放金屬支架。一年後，資料顯示使用滲藥性支架的患者的死亡率為 0.3%，比置放金屬支架的患者達 4.7% 的死亡率為低。此外，他們需要再次接受血管重建術的機會亦明顯較低，只有 1.7%；而使用金屬支架的患者則有 5% 需要再次接受治療。雖然使用滲藥性支架的手術費用(港幣 46,913 元)比使用金屬支架(港幣 31,991 元)昂貴，但使用金屬支架的患者的初次住院、覆診及再次接受冠狀動脈血管成形術的費用則較高，抵銷了較低的手術費用。總括來說，使用滲藥性支架的一年總支出比使用金屬支架僅多港幣 2,749 元。

本研究首次證明於本港的公立醫院使用滲藥性支架具成本效益，它不僅減低病人於術後的 12 個月內再要接受治療的機會，還降低死亡率。因此，我們建議政府在考慮資助有需要接受冠狀動脈血管成形術以治療冠心病的財困病人時，應考慮資助其置放滲藥性支架。

二零零九年一月十三日