Topic: 5. Secondary Prevention of Cardiovascular Disease.

5-Year Outcomes After Implementation of Optimal Medical Therapy in General Practice Using Liaison Critical Pathway for Secondary Prevention of Coronary Artery Disease: An Observational Study

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Introduction and Objectives

Liaison critical pathways (LCPs) for coronary artery disease (CAD) were developed to support collaborative care for CAD patients between cardiologists in emergency hospitals and referring physicians through sharing of medical information, including cardioprotective medications and cardiovascular risk factors.¹ LCPs for CAD may be effective for facilitating implementation of optimal medical therapy (OMT) in general practice. However, little is known about the outcomes of the patients managed using LCPs. The objective of this study was to investigate the outcomes after the implementation of OMT in general practice using the LCP.

Materials and Methods

We conducted an observational study of 314 CAD patients (age, 69.2 ± 9.9 years old; male, 74 %) undergoing percutaneous coronary intervention for stable CAD (67.8 %) or acute coronary syndrome (32.2 %) in our hospital between September 2007 and June 2010; these patients were managed with an LCP by referring physicians after discharge for two years. We surveyed implementation of scheduled hospital visits, prescription of cardioprotective medicines, target achievement of risk factors and the outcome, including revascularization, nonfatal myocardial infarction and death from any cause, during a follow-up period of 5 years.

Results

Implementation rate of hospital visits was elevated from 50.7 % to 89.3 % after establishing the LCP. High prescription rate for anti-platelet drugs and statins was maintained for 5 years (92.7 % and 86.4 %, respectively, at the 5th year survey). Target achievement rates for low-density lipoprotein cholesterol < 100 mg/dL and high-density lipoprotein cholesterol ≥ 40 mg/dL were significantly elevated from 48.4 % to 78.7 % and 61.7 % to 83.9 %, respectively, after establishing the LCP, which remained high during the follow-up period. The revascularization rate of non-target lesion was relatively low (23 % in 5 years), although that of target lesion did not decrease. The 5-year cumulative event rate of nonfatal myocardial infarction was 2.5 %, which was low in comparison with the data reported in previous studies.² 28 patients died from any causes; main causes were cancers (n=10) and infectious disease (n=9) and only 2 patients died from myocardial infarction.

Conclusions

Implementation of OMT in general practice using LCPs may contribute to decreasing non-target lesion revascularization, and nonfatal and fatal myocardial infarction, but may not be effective for reducing target lesion revascularization and death from any causes. ■

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