Post-MI Depression: Increased Hospital Admissions and Reduced Preventive Health Behaviours

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Background: Depression is prevalent in the aftermath of myocardial infarction (MI). There is widespread evidence of an association between depression and post-MI mortality however few studies have investigated hospitalization in MI survivors.

Objective: This study aimed to examine the long-term relationship between depression, post-MI hospital admissions and health behaviours, in order to assess the burden of post-MI depression on patients and the healthcare system.

Methods: A cohort of 632 patients aged ≤65 years, admitted for incident MI to one of the 8 hospitals in central Israel between 1992-1993, was followed for a median of 13 years. Clinical, psychosocial and socioeconomic data were recorded on 5 separate occasions. Depression was measured at initial hospitalization using the Beck Depression Inventory.

Results: During follow-up, there were 4,947 hospital admissions and 26,283 days of hospitalization. Depressive symptoms were significantly associated with days of hospitalization (RR, 1.37, CI, 1.26-1.49), an association that persisted after adjustment for clinical (including MI type and severity), psychosocial and socioeconomic risk factors (RR, 1.14, CI, 1.04-1.26). Total hospital admissions, and hospitalizations for cardiac events or chest pain, were significantly related to depression (Figure 1), reported per 1SD increase in depression score. Depressed patients were less likely to adopt preventive health behaviours including smoking cessation (OR, 0.75, CI, 0.60-0.94), physical activity (OR, 0.80, CI, 0.69-0.94) and participation in cardiac rehabilitation (OR, 0.74, CI, 0.59-0.92).
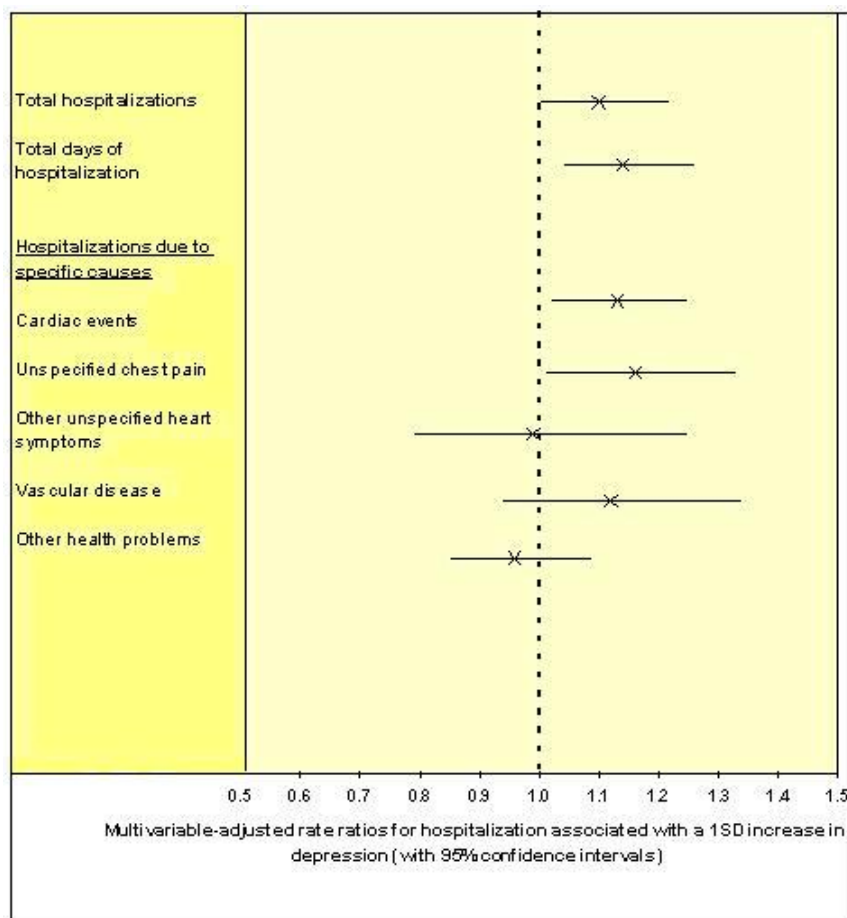
Conclusions: An association was demonstrated between post-MI depression and increased hospital admissions, possibly mediated through preventive health behaviours. These findings have implications for both patients' prognosis and quality of life and for healthcare costs. Clinical and sub-clinical depressive symptoms must be identified in post-MI patients and targeted care provided.