

The Relation Between Depression and Heart Disease

Eldon R. Smith OC, MD, FRCPC
October 15, 2008

HEART DISEASE AND STROKE IN CANADA (2004)

Accounted for:

- 32.1 % of deaths
- 15.8 % of hospitalizations (2005/06)
- \$23 billion in costs

Reflecting the population risk profile

- 20% smokers
- 56% inadequate diet (fruits and vegetables)
- 48% physically inactive; 34% overweight; 17% obese
- 17% hypertensive; 7.1% diabetic, high cholesterol common
- 23% excessive stress/depression

Does Depression Cause Heart Disease?

- Evidence is conflicting
- Recent Canadian data:
 - an episode of depression resulted in a 1.7 fold increase in development of heart disease for women
 - No significant impact for men
- Other studies have found significant impact for both men and women

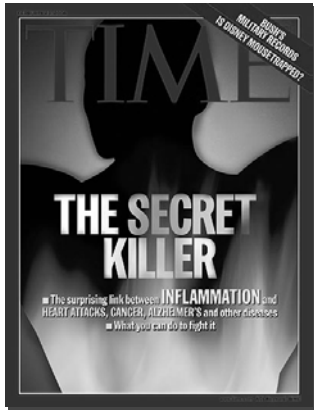
Does Depression Worsen the Outcomes from Heart Disease?

- Up to 1/3 of individuals after a heart attack have clinical depression
- Those with depression:
 - have a 2 – 2.5 fold increase in repeat heart attack or death
 - have a lower quality of life
 - are less likely to take helpful medications

Why are Depression and Heart Disease related?

Theories

- Poor lifestyle practices
- Poor compliance with helpful medication
- Common genetic factors
- Disturbed autonomic regulation
- Inflammation



Inflammation

- Participates in the 'hardening of the arteries' that leads to heart attacks
- Inflammatory markers increased in individuals with heart failure
- Inflammatory markers increased in people with depression
- Those with increased markers and depression much more likely to develop heart attack

Conclusions

- Both heart disease and depression are very common in Canadians over age 40
- For reasons that are not completely clear
 - Individuals with depression more likely to develop heart (and other vascular) disease
 - Individuals with heart disease are likely to develop depression
 - Those with heart disease who develop depression have poor outcomes

RECOMMENDATION

“Clinicians should routinely screen their patients with heart disease for signs of depression, refer those in whom it’s suspected to a qualified mental health professional and monitor any patient receiving treatment for both disorders”

American Heart Association – October 2008
(endorsed by the American Psychiatric Association)
