

10 Cardiovascular Disease

Chapter Summary

Cardiovascular disease (CVD) is among the leading causes of death in North America. Advances in treatments have reduced the risk of mortality, such that an increasing number of individuals live with chronic CVD. CVD requires long-term medical follow-up and often re-hospitalizations, and may reduce patients' capacity to maintain employment, which can have a negative effect on security and quality of life and on the economy.

Psychosocial factors are associated with CVD onset, reoccurrence, and quality and quantity of life. Major psychosocial factors implicated in the development and prognosis of CVD include depression and anxiety, job and marital/family stress, social isolation, and personality factors such as hostility. These factors may directly influence the disease process through pathophysiological changes, such as inflammation and endothelial damage, resulting in atherosclerosis. Psychosocial distress also indirectly affects disease progression by promoting poor health behaviours that can lead to the development of traditional risk factors such as diabetes, hypertension, and high cholesterol.

In summary, the role of psychology in the management of heart patients is based on many interrelationships. This chapter establishes that psychological distress (a) is linked to behavioural and cardiovascular risk factors, and may itself be a risk factor for CVD; (b) may trigger acute cardiac events; (c) can form a barrier to the receipt of evidence-based therapies; (d) is highly prevalent in cardiac patients; and (e) can masquerade as cardiac symptoms.

Essay Topics

1. How does CVD impact quality of life? (pp. 208, 210, 214)
2. How do behavioural and social factors contribute to the onset of CVD? (pp. 208, 212, 215–221)
3. How can social isolation increase the risk of CVD? What methods of intervention for patients with CVD would be most effective in overcoming this factor? (pp. 214, 217–218)
4. What methods are used to psychologically assess CVD patients? (pp. 221–222)

Weblinks

<http://www.heartandstroke.com/>

The Heart and Stroke website provides a wide variety of resources such as health information, research, online tools, and health management.

https://www.youtube.com/watch?v=H_VsHmoRQKk

This animated video describes the biological mechanisms behind heart attacks.

<http://www.rexhealth.com/cardiac-rehabilitation>

Cardiovascular rehabilitation (CR) is a comprehensive secondary prevention program providing risk factor modification through education, behavioural counselling, and individualized exercise training.

<http://www.americanheart.org>

The American Heart Association website provides links for patients, health care providers, and researchers. It is also a portal to information on stroke.

<http://mylifecheck.heart.org/Default.aspx>

My Life Check, designed by the American Heart Association, is a seven-step health status assessment tool. This website also provides customized recommendations for health improvement.

Glossary

Acute coronary syndrome The continuum from unstable angina (i.e., ischemia causing chest pain that does not remit with rest) to myocardial infarction (MI).

Angina A symptom of ischemic heart disease characterized by chest, shoulder, jaw, or neck pain; occurs when part of the heart muscle does not receive enough oxygen. Most often manifested during times of physical exertion.

Cardiovascular rehabilitation (CR) Cardiovascular rehabilitation: A comprehensive secondary prevention program, providing risk factor modification through education, counselling (for health

behaviours such as pharmacological therapy adherence, nutrition and weight management, smoking cessation, etc.) and individualized exercise training.

Heart failure The heart's inability to adequately pump enough blood with oxygen and nutrients to meet the needs of the body.

Ischemic heart disease Restriction of blood flow through circulatory vessels depriving heart muscle tissues of blood supply and hence access to oxygen and nutrients, which may lead to myocardial infarction.

Myocardial infarction (MI) A complete blockage of an artery causing the death of heart muscle in the surrounding area due to the deprivation of oxygen and nutrients to the tissues. Commonly referred to as a heart attack.

Quality of life An individual's general well-being, including emotional, social, and physical aspects of one's life. Health-related quality of life may be impacted by numerous illnesses and diseases, such as CVD.

Revascularization A medical procedure performed in a hospital to restore blood flow to the heart tissues; includes percutaneous coronary intervention (e.g., stents) and coronary artery bypass graft (CABG) surgery.