Final evidence for the benefits of exercise in the treatment of patients with chronic disease using limited resources of health care system should be based on well designed randomized controlled trials (RCTs). A well designed RCT should be based on a plausible explanation for how (via which mechanism) exercise benefits the patient. Recently, the number of RCTs evaluating the effects of physical exercise therapy in the treatment of specific diseases has increased substantially. The most consistent finding of the studies is that aerobic capacity and muscle strength can be improved among patients with different diseases without causing detrimental effects on disease progression. Severe complications during these carefully tailored programs were rare. In some diseases, such as osteoarthritis, pain symptoms may also be reduced. The majority of the RCTs are of a too short duration to document disease progression.

Many systematic reviews summarizing data from RCTs have been published recently. Findings of these systematic reviews include that exercise therapy: reduces all-cause mortality and total cardiac mortality in coronary heart disease, has physiological benefits in heart failure, increases the walking time in intermittent claudication, lowers blood pressure in hypertension, lowers glycosylated hemoglobin in type 2 diabetes, increases cardiorespiratory fitness in asthma and chronic obstructive pulmonary disease, improves self reported pain and self-reported physical function in patients with knee osteoarthritis and improves pain outcomes in non-specific chronic low back pain patients. The major methodological limitations of the RCTs include that clinical trials using nonpharmacological treatments, such as exercise therapy, are less often properly blinded or placebo controlled than pharmacological clinical trials. Also, generalizability may be a problem while some RCTs include patients that are not representative of the general population of patients as regard to age and coexisting diseases.

Today, when implementing new treatment methods, we can not ignore cost-utility analyses. A quality-adjusted life year (QALY) provides a common currency to assess the extent of the benefits gained from a variety of interventions in terms of health related quality of life and survival of the patient. Some studies already show that exercise therapy is a competitive means to be used in health care.

Further reading:

Keywords: Therapy, Exercise