1. Record Nr. UNINA9910426054603321

Titolo	Sex differences in heart disease / / Bohuslav Ostadal and Naranjan S. Dhalla (editors)
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2020] Â©2020
ISBN	3-030-58677-4
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XVI, 284 p. 47 illus., 15 illus. in color.)
Collana	Advances in Biochemistry in Health and Disease ; ; 21
Disciplina	573.1
Soggetti	Cardiovascular Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The role of sex in cardiac function and disease -- Sex based differences in cardiac ischemic injury and reperfusion -- Sex differences in myocardial infarct size -- Sex differences in the susceptibility to ischemic injury – the role of calcium loading and adrenergic stimulation -- Sex and obesity and myocardial tolerance to ischemia -- Effect of female sex on rat ventricular myocytes exposed to stimulated ischemia -- Cardioprotection in females -- Sex differences in Cardioprotection ischemia reperfusion injury -- Sex and ischemic preconditioning -- Postconditioning and female heart -- Prenatal hypoxia and sex-dependent increase in heart susceptibility in adults -- Sex and cardiovascular system -- Sex differences in coronary heart disease -- Sex differences in the management of non-ST-elevation acute coronary syndrome -- Sex specific aspects of coronary heart disease risk factors -- Sex differences in patients with ischemic heart failure undergoing surgical treatment -- Woman and the management of acute coronary syndrome -- Sex differences and heart hypertrophy and failure -- Sex differences among patients with acute coronary syndrome undergoing PTCA -- Sex differences and atherosclerosis -- Estrogen and cardiovascular system -- Estrogen signaling and cardiovascular disease -- A novel estrogen receptor GPER and its role in the protection against ischemia/reperfusion injury -- Sexual hormones: effects on mitochondrial activity after ischemia/reperfusion injury -- Progesterone and ischemia/reperfusion injury -- Testosteron

and myocardial infarction -- Postmenopausal hormone therapy: risks and benefits -- Molecular and cellular basis of cardiovascular sex differences -- Mitochondria – a target for sex differences in cardiac pathology -- Sex differences in the sensitivity of cardiac mitochondrial permeability transition pore to calcium load -- Sex differences in mitochondrial biogenesis -- Sexual dimorphism in the expression of mitochondria-related genes in rat heart -- Sex differences in mitochondrial antioxidant gene expression -- Sex differences in the regulation of mitochondrial subpopulations -- Sex specificities in Ca handling in cardiac mitochondria -- The influence of exercise and sex on mitochondrial metabolism and ultrastructure -- Sex differences in the phosphorylation of mitochondrial proteins – effect on cardioprotection -- Sex – specific proteomic alterations in mitochondrial pathways.

Sommario/riassunto

Cardiovascular diseases are the leading cause of mortality in men and women. Unfortunately, women have traditionally been excluded from clinical trials, and female animals have been used less or sex was not reported in basic research studies. Until recently, consideration of both sexes was not required in clinical and preclinical studies focusing on cardiovascular diseases. However, the number of clinical and experimental papers dealing with sex differences and heart disease significantly increases during the last years. This trend is obviously the result of at least two facts: the number of examples of different behavior of the male and female heart under physiological and pathological conditions is steadily increasing and there were controversial reports on the beneficial and adverse effect of hormonal replacement therapy. Detailed molecular and cellular mechanisms of these differences are still unknown but one is clear already today: sex differences are so important that they should be considered by the selection of optimum diagnostic and therapeutic procedures in clinical practice. The book presents 16 manuscripts on sex differences of heart disease, as developed by several investigators; the volume is organized in four parts. Part I, dealing with sex differences in cardiac ischemic injury, includes 5 chapters on experimental aspects of cardiac ischemia/reperfusion injury, the role of testosterone, and clinical aspects of ischemic heart disease. Part II is devoted to sex differences in heart failure and includes four chapters. Discussion in this part of the book is centered around the sex differences in heart failure due to volume overload. Part III of this volume includes four papers on risk factors of cardiovascular diseases, namely hypertension and obesity, and, finally, three chapters in part IV deal with sex differences of cardiac mitochondria under different pathological conditions. We believe this book will be very useful for cardiovascular scientists, graduate students, postdoctoral fellows and other health professionals.