Atherosclerosis reviews: Hypercholesterolemia, clinical & therapeutic implications


For many years hypercholesterolemia has been recognized as a risk factor for the development of atherosclerosis. In recent years a mounting body of epidemiologic, experimental, and clinical data have clearly linked elevated plasma lipoproteins, particularly low-density lipoproteins, to coronary artery atherosclerosis. Recommendations have been made to the general population regarding ideal levels of serum cholesterol and strategies to achieve acceptable levels in patients with hypercholesterolemia. This book reports the proceedings of a symposium that addressed these important issues.

The symposium, "Hypercholesterolemia: Clinical and Therapeutic Implications," was held in Paris, France, on Dec. 4 and 5, 1987, and included well-recognized experts in the field from the United States and Europe. In the book the problem of hypercholesterolemia is addressed from basic mechanisms of lipoprotein metabolism and the effects of lipids on the artery wall to epidemiologic investigations and clinical trials of lowering serum cholesterol. The Framingham and other epidemiologic studies are reviewed and clearly identify total cholesterol and low-density lipoproteins as important predictors of cardiovascular disease and death. However, there is a marked age effect in this relationship with a strong relationship in young men and little predictive value in both sexes over the age of 50 years. Furthermore, whereas lipid levels are predictive of coronary heart disease, they contribute little or nothing to the prediction of transient ischemic attacks and stroke.

The clinical primary prevention trials leading to the current American and European recommendations for the general public are reviewed in a clear and concise manner. Of note is the peculiar finding that although lowering cholesterol levels reduced ischemic heart disease, there was no increase in longevity. The rationale and strategies of dietary and drug treatment of hypercholesterolemia are well covered. Highly effective cholesterol-lowering agents, including lovastatin and simvastatin, are discussed and compared to trials that used probucol and cholestyramine. The biochemical rationale, effectiveness, and early results of clinical trials are clearly presented.

This is an important volume that represents the current state-of-the-art knowledge about hypercholesterolemia. It represents the evolution of many years of basic research to current clinical applications and public health issues. Since the risk of coronary artery disease faces us all, and since the potential for impacting on the disease with dietary and possible drug therapy is a reality, this is a very important volume for everyone to read.

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Angioscopy: Vascular and coronary applications


This book represents state-of-the-art information as a starting point for anyone beginning angioscopy procedures. The primary authors have an extensive experience with this new technology, and the contributing authors are pioneers in the field. The chapters dealing with troubleshooting for technical problems, care of equipment, and evaluation of the commercial hardware available and needed are excellent. There is a brief but informative chapter describing the basic physical properties and optics principally involved in the function of an angioscope. Research-oriented chapters including pulmonary angioscopy, intimal injury associated with angioscopy, and the technique of computerized digital imaging to enhance visualization are of interest.

The point is well made in the preface and in multiple chapters that angioscopic three-dimensional viewing represents new advanced technology and carries with it a necessary learning curve. The clinical significance of these visual observations (particularly when compared against angiographic observations) remains unclear in many areas. Training and experience are recognized requirements to develop appropriate interpretative ability. New invasive procedures with the laser, atherectomy devices, in situ evaluations, thromboembolectomy, and operative site viewing are each presented with good hands-on clinical discussion included.

The shortcomings of the book include significant overlap and repetition among the various authors (particularly with sections dealing with coronary applications). Also the text black-and-white photographic reproduction quality is less than desired especially when contrasted with the illustrative color plates at the front of the text.

Angioscopy is gaining more widespread acceptance, and this text will be of substantial benefit to anyone with significant clinical or investigational interest in the burgeoning field of interventional vascular technology.

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