Ischaemic heart disease

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IHD is a major cause of morbidity and mortality in resource- rich countries. The underlying pathology is usually atheroscle - rosis of the coronary arteries. Pathophysiology Atherosclerosis is the process underlying the formation of focal - obstructions or plaques in large- and medium-sized arteries. It is a chronic inflammatory process resulting from interactions between plasma lipoproteins, leukocytes (monocyte/macro - phages, T lymphocytes), vascular endothelial cells and smooth - muscle cells. Di ff erent progressive stages of atherosclerosis exist; namely /uni25CF The fatty streak . The first evidence of atherosclerosis can be found in children aged 10–14 years. This appears streak consists of smooth muscle cells, which are filled with cholesterol, and foam cells (lipid-laden macrophages). /uni25CF Fibrous plaque . A fibrous plaque consists of large num bers of smooth muscle cells, foam cells and leukocytes. As the fibrous plaque grows, it projects into the vessel lumen, causing narrowing that, in turn, can lead to ischaemia or infarction. /uni25CF Complicated lesion . This occurs when the fibrous plaque ruptures, provoking activation of the coagulation cascade and the formation of thrombus. The end result is often a calcified ulcerated plaque with areas of haemor rhage and thrombus.

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