

S U M M A R Y

Atherosclerosis is one of the most important diseases nowadays, It has it's definite implications of surgical conditions, In apart with certain diseases, early setting of atherosclerosis is known to raise the hazards of surgical complications and insults.

In this study a recent review of atherosclerosis wheather occuring in the expected surgery or earlier than usual, factors helping it's occurance and insults result from it together

The more important aspects of atherosclerosis have been discussed with special stress upon the surgical aspects of aortic atherosclerosis.

As regards the etiology of aortic atherosclerosis, There are many factors both extrensic and intrinsic, acting simultaneously or in sequence, occuring possibly within a certain critical time period to produce the atherosclerotic lesion. The major risk factors are: hypercholesterolemia, hypertension and cigarette smoking, while hyperglycemia, obesity, sedentary living habits, psychological tension and positive family history of premature atherosclerosis appear to have a lesser influence. Diet may be a contributing factor in atheromatous process by two mechanisms, obesity and serum cholesterol.

Many theories have been postulated to explain the pathogenesis of atherosclerosis. The first has been called the

"lipid infiltration" or "insudation" theory. The second theory can be referred to as the "encrustation" or "thrombogenic" theory. More recently the two theories have been melded together into what might be called "injury and repair" hypothesis.

Clinically atherosclerosis is an insidious disorder, throughout much of its pathological changes remains silent and cannot be detected by ordinary clinical examination. It makes its presence known by :-

I-Causing ischemia of some vital organs, such as the heart, brain, intestines or kidneys or by producing gangrene of the lower limb.

II-Predisposing to thrombosis, which may give rise to emboli.

III-Weakening of the arterial wall, usually the aorta, resulting in an aneurysm.

The use of different diagnostic methods to establish the correct diagnosis and to evaluate the severity and progress of the disease has been discussed; These include angiography, radioisotopic scanning, ultrasonography, and biochemical studies.

Aortic reconstruction surgery for management of atherosclerotic aortoiliac occlusive disease and aortic aneurysms has been discussed and the different techniques have been described according to the site of affection. These techniques include endarterectomy and bypass grafts either anatomical or extra anatomical e.g. axillary femoral and ascending aorta to bilateral femoral subcutaneous grafts.