Prevalence of peripheral arterial disease among the patients undergoing coronary angiography in one year, using ankle –arm index

Thesis

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مدى انتشار امراض الشرايين الطرفية بين المرضى الخاضعين لتصوير الشرايين التاجية بالصبغة فى خلال عام واحد باستخدام نسبة ضغط الدم الانقباضى بين شرايين الكاحل و شرايين العضد

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AAI	Ankle arm index
apo	Apo lipoprotein
ASO	Atherosclerosis
AVD	Atherosclerotic vascular disease
BMI	Body mass index
BR	Brachial
CAD	Coronary artery disease
CLI	Critical limb ischemia
CVD	Cerebrovascular disease
DM	Diabetes mellitus
DP	Dorsalis pedis
Fig.	Figure
HDL	High density lipoprotein
hs.CRP	High sensitivity C - reactive protein
HTN	Hypertension
IC	Intermittent claudication
LDL	Low density lipoprotein
LVEF	Left ventricular ejection fraction
MMP	Matrix metalloprotein
MS	Metabolic Syndrome
PAD	Peripheral arterial disease
PDGF	Platelet derived growth factor
PT	Posterior tibial
ROS	Reactive oxygen species
STEMI	ST-segment elevation myocardial infarction
TIAs	Transient ischemic attacks
TF	Tissue factor
VSMCs	Vascular smooth muscle cells

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Review of literature

Subjects & Methods

Subjects and methods

I. This study was conducted on 100 patients who were admitted to the coronary care unit of Agoza Police Authority hospital with acute coronary syndrome and would subsequently be subjected to coronary angiography, from January 2006 to January 2007.

Exclusion criteria:
1- Patients with previous CABG.
2-Patients with AAI ≥1.5 (a false high level derived from calcified non-compressible arteries at the ankle level, which is commonly seen in diabetics).

II. **All patients were submitted to the following:**
(1)Full history analysis including:

a. Personal history:
Age, occupation, special habits and important risk factors for I.H.D as cigarette smoking hypertension, D.M.or dyslipidaemia.
b. Present history:
Presence of chest pain: onset, course, duration, site, typical or atypical.

c. Past history:
Of ischaemic events, myocardial infarction, transient ischaemic attacks (TIAS), stroke, claudicating pain or previous lower limb vascular surgery.

d. Family history:
Of coronary heart disease or peripheral arterial disease.

(2)Clinical examination:
All patients were subjected to full clinical examination with special emphasis on:
1-Pulse examination for abnormal rhythm, palpation of peripheral pulses namely posterior tibial and dorsalis pedis.
2-Blood pressure measurement.
3-The lower extremities were also examined for color changes, trophic changes, ulcers, gangrene and temperature changes.
4- Cardiac examination: Full cardiac examination with special emphasis on auscultation of additional sounds as S3, S4 and abnormal murmurs.

(3)Laboratory investigations:
-Fasting and post prandial blood sugar.
-Lipid profile tests (total cholesterol, LDL-C, HDL-C and triglycerides).
-Serum cardiac enzymes, CPK, CKMB, LDH, SGOT on admission, 12 hours and daily.

(4)Electrocardiogram (ECG):
In all patients a resting standard 12 lead surface electrocardiogram was done to detect:

1-The presence of left ventricular hypertrophy or strain.
2-The presence of ischemic heart disease: either by presence of pathological Q in topographical leads (chest leads or inferior limb leads) or by symmetrical T wave inversion or by the presence of ST segment depression in either chest or limb leads.
3-The presence of arrhythmias; either atrial fibrillation, premature beats (atrial, ventricular) or bundle branch block (left or right).

(5)Resting ankle –arm index:

Calculation using Doppler probe as follows:
- Measurement of systolic blood pressure in the (Rt.BR and Lt.BR), (Rt.PTandLt.PT) and (Rt.DP and Lt.DP) arteries; while patient was in the supine position and after at least 5 minutes of rest.
-A hand held Doppler probe (Model 811.B, Frequency 9.5MHz) and standard blood pressure cuff connected to a random zero manometer was adopted to detect the arterial flow.
-The cuff was inflated to 10 mmHg above systolic pressure and deflated as 2mmHg/s.
The first reappearance of the pulse was taken as the systolic pressure.
-The pressure was obtained in the following order: right BR, right DP, and right PT, left DP, left PT and then left BR arteries.