WOMEN AND STROKE

PRESENTER

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OUTLINE

- **INTRODUCTION**
  - **WHAT IS STROKE?**
- **TYPES OF STROKE**
  - **UNIQUE SYMPTOMS IN WOMEN**
  - **WOMEN STROKE RISK**
  - **SECONDARY PREVENTION**
  - **SUMMARY**

WHAT IS STROKE?

•Cerebrovascular disease (CVD) otherwise called stroke refers to damage of the brain as a result of blockage of an artery or bleeding from a ruptured artery in the brain.

•The World Health Organisation defines stroke as a rapidly developing clinical signs of focal or global disturbances of cerebral function with symptoms lasting 24hours or longer or leading to death with no other cause other than of

vascular origin.

•This definition includes Subarachnoid Haemorrhage but excludes Transient ischemic Attack, Subdural Haematoma and haemorrhage or infarction caused by infection or tumour.

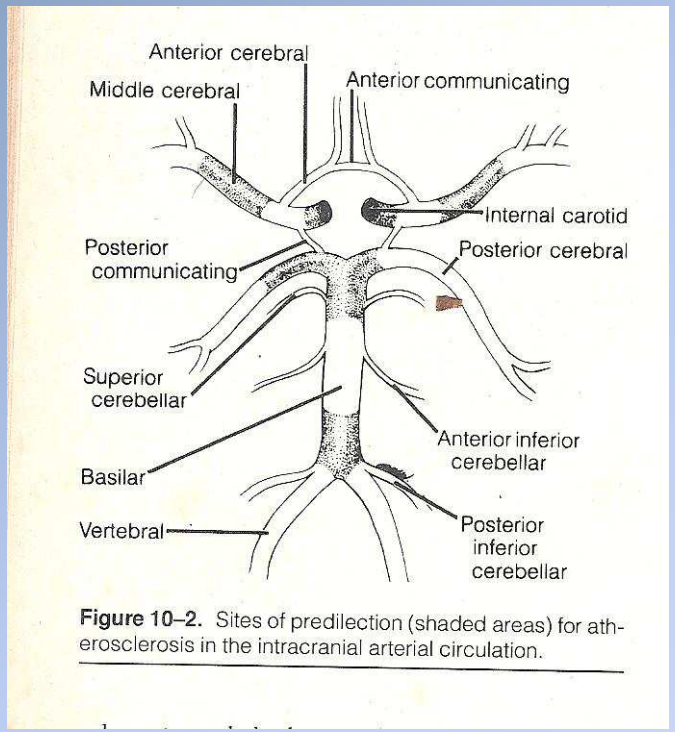


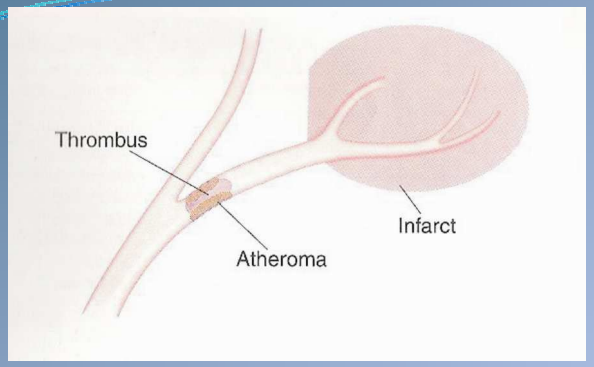
Figure 10–2. Sites of predilection (shaded areas) for atherosclerosis in the intracranial arterial circulation.

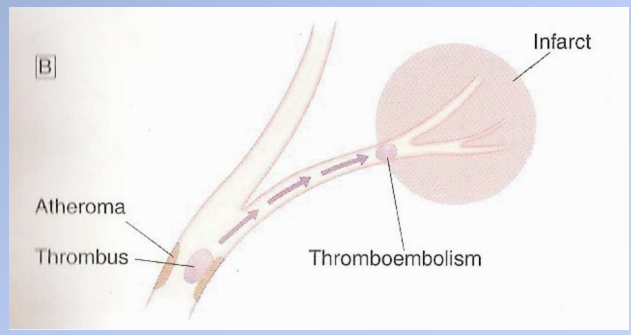
Did you know……..

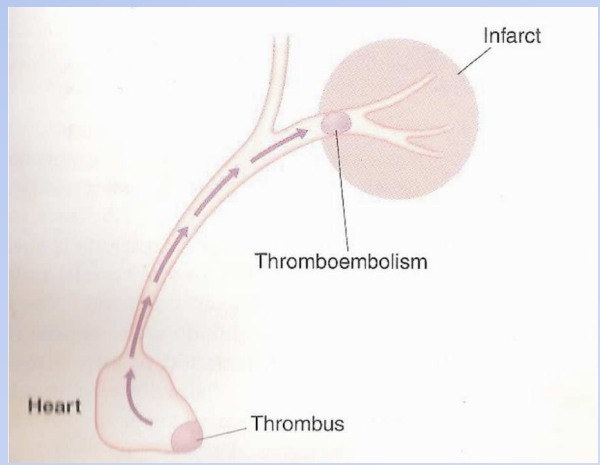
- 425,000 women suffer from stroke each year, 55,000 more than men.
- Only 27% of women could name more than 2 of the 6 primary stroke symptoms
- 7 out of 10 women said they are not aware they are more likely than men to have stroke and were not at all and only somewhat knowledgeable about risk factors
- African-american women suffer a higher number of strokes than caucasian women yet they are more less likely to correct identify what causes a stoke compared to caucasian women
- Stroke is a leading cause of death for hispanic women but they were significantly less aware of stroke symptoms than caucasian women.

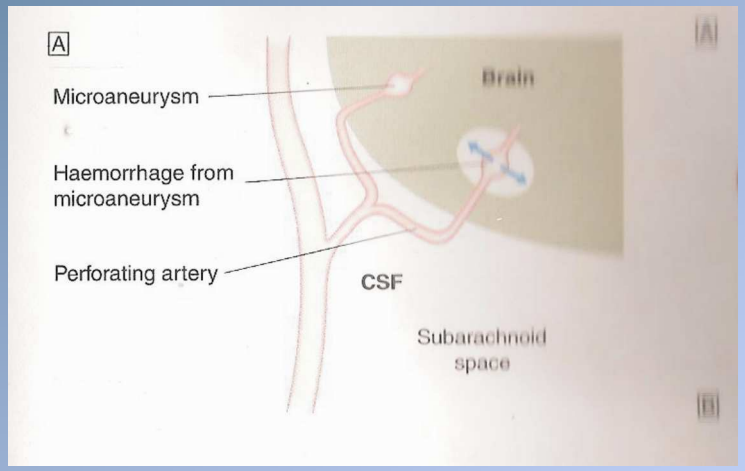
LOCAL STATISTICS

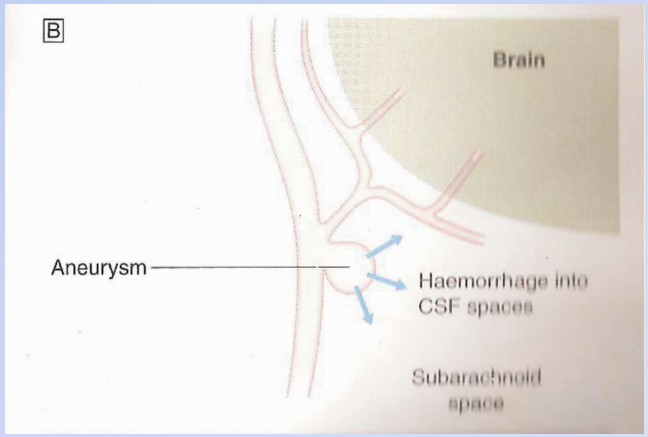
- A three year study done in Nigeria at Central hospital ,Benin city from 2007 to 2010 showed thus:
- Total number of men with stroke= 118
- Total number of women with stroke= 93
- Majority of the women had ischemic stroke with minority of them having hemorrhagic stroke and transcient ischemic attack.
- There was a high incidence of hemiparesis and hemiplegia with less of facial palsy


Thrombus
Infarct
Atheroma


B
Infarct
Atheroma
Thrombus
Thromboembolism


Infarct
Thromboembolism
Heart
Thrombus


A
Brain
Microaneurysm
Haemorrhage from microaneurysm
Perforating artery
CSF
Subarachnoid space
B


B
Brain
Aneurysm
Haemorrhage into CSF spaces
Subarachnoid space

RISK FACTORS IDENTIFIED

Hypertension = 87

Diabetes = 11

Alcohol = 7

Smoking = 8

Obesity = 5

Previous stroke = 3

Retroviral disease = 1

mortality

number of deaths = 31

Unique symptoms in women

- Common stroke symptoms seen in both sexes :
- Sudden numbness n weakness of face,arm or leg
- Sudden confusion , trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking , dizziness , loss of balance or coordination
- Sudden severe headache with no known cause

Unique symptoms in women contd

- Women may report unique symptoms :
- Sudden face n limb pain
- Sudden hiccups
- Sudden nausea
- Sudden general weakness
- Sudden chest pain
- Sudden shortness of breath
- Sudden palpitations

WOMEN STROKE RISK

- Some risk factors are same for both sexes :
- Family history of stroke
- High blood pressure
- High cholesterol
- Smoking
- Diabetes
- Obesity
- Sedentary lifestyle

Women stroke risk contd

- Other risks unique include:
- Birth control pills
- Pregnancy
- Use of hormone replacement therapy
- Havin a thick waist n high triglyceride level
- Migraine headache sufferer

CONTROLLABLE RISK FACTORS

High blood pressure

Atrial fibrillation

High cholesterol

Diabetes

Atherosclerosis

Tobacco use n smoking

Alcohol use

Physical inactivity

Obesity

Uncontrollable risk factors

- Age
- Gender
- Race
- Family history
- Previous stroke or TIA

  Fibromuscular dysplasia
- Patent foramen ovale

Risk factors contd

Controllable medical risk factors

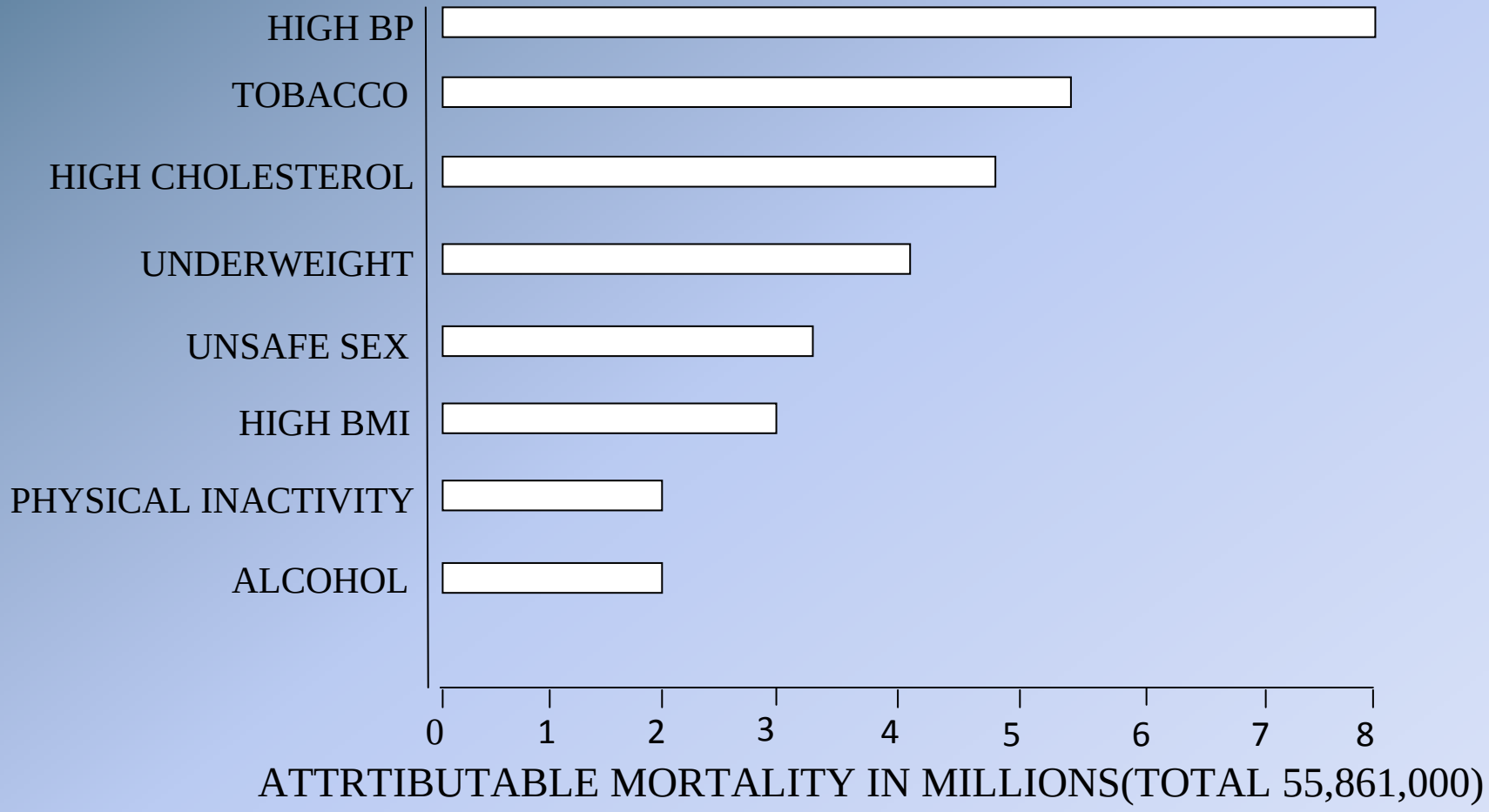
- High blood pressure
- Atrial fibrillation
- High cholesterol
- Diabetes
- atherosclerosis

Controllable lifestyle risk factors

- Tobacco use and smoking
- Alcohol use
- Physical inactivity
- obesity
- Drug use (cocaine, amphetamine, heroin etc)

Risk Factor	High Risk	Caution	Low Risk
Blood Pressure	>140/90 or I dont Know	120-139/80-89	<120/80
Cholesterol	>240 or I dont know	200-239	<200
Diabetes	Yes	Borderline	No
Smoking	I still smoke	I'm trying to quit	I am a non-smoker
Atrial Fabrillation	I have an irregular heartbeat	I dont know	My heartbeat is not irregular
Diet	I am overweight	I am slightly overweight	My weight is healthy
Exercise	I am a couch potato	I exercise sometime	I exercise regularly
I have stroke in my family	Yes	Not sure	No
Score (each box=1)			

GLOBAL MORTALITY 2000:
Impact Of Hypertension, Smoking, Cholesterol And Diabetes



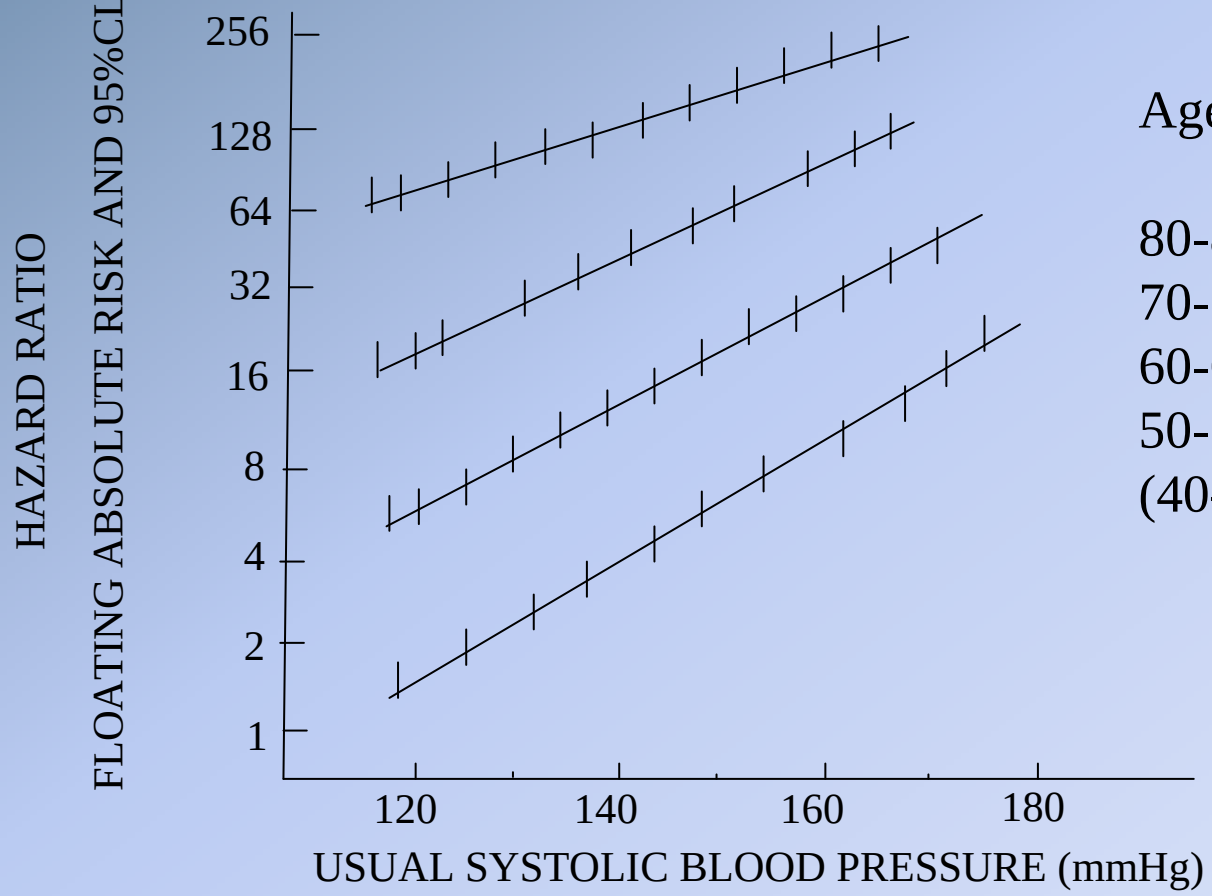
Ezzati et al. 2002;360:1347-1360

Observation Evidence That Increase In BP Is Associated With Stroke

Prospective Observation Of Ones Million People And 12,000 Stroke Deaths At Ages 50-89

Continuous Log-linear Association Between SBP And Risk Of Stroke

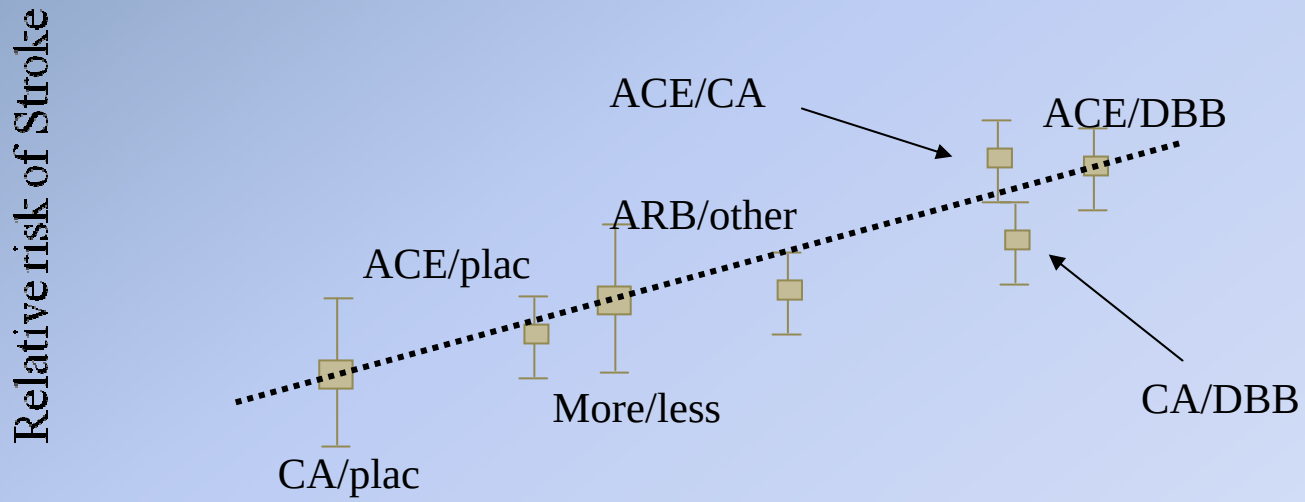
Prospective studies collaboration, Lancet 2002;360:1903-13



Age at risk	↑ risk for every 20mmHg ↑ SBP
80-89	33%
70-79	50%
60-69	57%
50-59	42%
(40-49	64% ↑ risk)

7 Meta-analysis Of Rcts Of Bp-lowering And Risk Of Stroke Show That Lowering Systolic Bp By 10 mmHg Reduces Stroke Risk By About 40%

Blood Pressure Lowering Triallists' Collaboration. Lancet 2002; 362: 1527-35



ASPIRIN

- Among the various medical management aspirin has shown a well established role in secondary stroke prevention.
- The rationale for its use lies in the ability to interfere with the formation a platelet fibrin thrombi.
- Although the value for its use of such therapy remains controversial due to its adverse drug reaction.

- Aspirin frequently causes gastrointestinal side effect.
- Relative risk reduction of stroke, myocardial infarction or vascular death is 13 – 14%, absolute risk reduction 1% (11 strides)
- No dose efficacy relationship between doses of aspirin 50mg to 1600mg
- Severe bleeding complications are dose-dependent
- GI side effects are dose dependent

SUMMARY

•The risk of recurrent stroke and other major vascular events can be reduced effectively by:

✓Sustained blood pressure lowering

❑10mmHg systolic reduction → 40% RRR

✓Sustained blood cholesterol lowering

❑1mmol/l (39mg/dl) LDL-C reduction → 20%RRR

And possibly also reduced by:

✓Optimal control of blood glucose among diabetics

❑0.9%HbA_{ic} reduction → RRR: 7% (-6% to 19%)

✓Smoking cessation

✓↑physical activity (≥30min/day) & ↓ body weight (BMI <25kg/m^2)

✓↑salt and alcohol, ↓ dietary fruit and vegetables, and folic acid

THANK YOU