SUMMARY

Coronary artery disease is the most frequent cause of death among women in the Western as well as the Eastern world. Consequently, there is a great need to address important issues, such as potential gender differences in terms of the extent of coronary artery disease and utilization of revascularization procedures.

The primary aim of the present study was to evaluate the extent and localization of coronary artery lesions in women with documented or suspected CAD and to shed light on their relation to risk factors, and clinical evaluation. Also , we aimed to evaluate whether gender-related differences existed as regards to the extent and localization of coronary artery lesions.

This study included fifty (50) consecutive female patients with clinical diagnosis of CAD who were referred for coronary angiography, also included twenty-five (25) consecutive male patients as control group.

Each patients was subjected to the following :

*Full history taking and thorough clinical examination
*Resting surface twelve leads electrocardiogram to
*Echocardiography
*Body-mass index estimation
* Lipid profile estimation.

* Coronary angiography with :

- Visual interpretation to determine :

  The number of coronary vessels affected,
  Site of lesion;
  Type of Lesions
  Collateral grading
  TIMI score

- Computerized auto interpretation to determine the degree of narrowing in the vessels affected

We divided our patients into two major groups (women and men) to evaluate whether gender-related differences existed as regards to the extent and localization of coronary artery lesions.
We further divided the women group into subgroups angiographic coronary artery involvement , to evaluate the effect of risk factors, and clinical presentation on the extent and localization of coronary artery lesions.

Our study revealed markedly significant gender difference in clinical presentation of CAD. As women present more commonly with atypical chest pain than men (30% vs 0% respectively)

In our study we found that women had normal coronaries more frequently than men (44% vs 12% respectively) , so we found 56% prevalence of significant CAD in women compared with 88% in men.

However, for men and women with evidence of coronary artery disease, single vessel disease was present in 54% & 43%

respectively and multi-vessel disease was present in 46% & 57% respectively.

Also we found no significant difference between men and women as regards the involved coronary artery.
The most frequently involved vessel was the left anterior descending artery, which was stenosed in 23 women (82%) vs 16 men (72%), followed by the right coronary artery in 13 women(46%) vs 9 men (41%) and the circumflex artery in 12 women (42%) vs 9 men(41%).

As regards to relation between risk factors coronary artery involvement in women, we found that women with significant coronary artery disease had more elevated LDL and decreased HDL levels, were mostly postmenopausal and diabetic.

We could say that diabetes mellitus is a very serious risk factor in women , it does not only predicts the presence of significant coronary lesions but also implies the presence of multi-vessel disease.