Brief Communication

Cardiovascular risk factors in Saudi and non-Saudi diabetics

Daad H. Akbar, FRCP, FACP,
Maimona M. Ahmed, FRCP, FACP,
Aisha A. Algamdi, Arab Board, Saudi Board.

Cardiovascular disease (CVD) is the leading cause of morbidity and death. Diabetes mellitus (DM) is closely associated with ischemic heart disease (IHD) and patients with DM and no previous history of IHD have the same risk for cardiac events as patients with previous myocardial infarction. Hyperlipidemia, hypertension, smoking and obesity are well known modifiable cardiovascular risk factors in both diabetics and non-diabetics.[1] This work aimed to evaluate the prevalence of CVD risk factors in diabetics in 2 different nationalities (Saudis and non-Saudis).

We studied diabetic patients attending in King Abdul-Aziz University Hospital, Jeddah, Kingdom of Saudi Arabia, for follow-up from January 1999 to December 2001. Cardiovascular disease risk factors include hypertension (patient is known or has 2 consecutive readings >130 mm Hg systolic, 85 mm Hg diastolic), hyperglycemia (if the patient is known or with LDL >2.6 mmol/l, triglyceride >2.3 mmol/l, HDL <0.9 mmol/l for males and one mmol/l for females), obesity (defined as body mass index >30% kg/m²), smoking history (either active or 5 years ex-smoker) was recorded from the medical records of the study group. In addition, participant's age, sex, nationality, degree of blood glucose control (poor blood glucose control defined as the mean of the most recent 2 hemoglobin A1c (HbA1c) readings >9%), and duration of DM were recorded. The study group was divided into 2 groups according to their nationality whether Saudis or non-Saudis and comparative analysis was made between them regarding the prevalence of CVD risk factors and degree of blood glucose control.

One thousand one hundred and fifty-five diabetic patients were studied. Thirty-five (3%) were excluded as they have missing values and the remaining 1122 were included in the study. Five hundred and forty-one (48%) were Saudis with male to female ratio of 1.3:1, while non-Saudis were 581 (52%) with male to female ratio of 1.1:1 (p 0.3). Four hundred and six (75%) were ≥45 years of age compared to 407 (70%) non-Saudis (p 0.06). Hypertension, hyperlipidemia, and smoking were common CVD risk factors in both Saudis and non-Saudis while obesity was less common in both groups. Both nationalities have poor blood glucose control (Table 1). Age was considered a risk factor for CVD in diabetics especially among individuals aged 45-74 years. The majority of our patients whether Saudis or non-Saudis was ≥45 years. It is well known that individuals with diabetes have a high risk of morbidity and premature death associated with the development of macrovascular complications especially among smokers. Smoking cessation is one of the few interventions that can safely, and cost effectively recommended for all patients. Data from the recent United Kingdom Prospective Diabetes Study[2] demonstrated that aggressive lowering of blood pressure was accompanied by reduction of macrovascular events. Recent studies have shown that CVD morbidity and mortality associated with DM can be considerably reduced through intensified treatment of hyperlipidemia.[3] The incidence of coronary heart disease events is correlated to BMI. A rise in coronary events with increasing BMI over 8 years of follow-up from 31 events per 1000 at BMI <20 kg/m² to 72 per 1000 at BMI >30 kg/m² had been reported.[4] Studies had shown that greater degree of hyperglycemia is associated with increasing CVD mortality in individuals with diabetes.[5] Our study showed that CVD risk factors (smoking, hypertension, hyperlipidemia and obesity) and poor glycemic control are common in both Saudis and non-Saudi diabetics. Patients education regarding diabetes disease process, nutritional management, physical activity, weight loss, cessation of smoking, compliance to medication, glucose monitoring, prevention and detection of complications are of great importance. Another important issue is physician education regarding screening for CVD risk factors and initiation of early and aggressive treatment when indicated.

Table 1 - Comparison between Saudis and non-Saudis according to some variables.

Variables	Saudis n (%)	Non-Saudis n (%)	p-value
Hypertension	287 (53)	302 (52)	0.6
Hyperlipidemia	249 (46)	250 (43)	0.4
Obesity	114 (21)	110 (19)	0.3
Smoking	303 (56)	343 (59)	0.5
HbA1c >9%	384 (71)	383 (66)	0.06
Mean duration of DM (years ± SD)	8.9 ± 7.3	8.8 ± 7.2	0.2

HbA1c - hemoglobin A1c, DM - diabetes mellitus

Jeddah 21381, PO Box 115652, Kingdom of Saudi Arabia. Tel. +966 55604854. Fax. +966 (2) 6944857. E-mail : daadakb@yahoo.com

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Ectopic pregnancy in a teaching hospital in Sudan

Saad E. Dafallah, MBBS, MGOK,
Abdalla H. Elsadig, MBBS, MDG,
Faroug El-Agib, MGO (U of K), MRCOG (London).

Ectopic pregnancy remains a major serious gynecological problem. Not only do women still die from the diseases, but a considerable number might never bear a living child and some cases might have a second ectopic pregnancy. The incidence of ectopic pregnancy is increasing, but the fatality rate is falling. Ectopic pregnancy is a serious gynecological problem. The incidence is increasing. This increment could be explained mainly by better means of diagnosis, and a major proportion is attributed either to the increasing use of intra-uterine contraceptive device or to the rising incidence of pelvic inflammatory disease which follows the wake of the venereal diseases. Ectopic pregnancy produces a variety of symptoms, signs and masquerades as many other conditions. Ectopic pregnancy refers to all pregnancies where the gestational sac is implanted outside the normal uterine cavity. Cervical and interstitial pregnancy although within the uterus are considered as ectopic pregnancies. The study was designed to review the clinical presentation of ectopic pregnancy, evaluate methods of diagnosis, identifying the risk factors, describe the findings at laparotomy and estimate the incidence of the disease.

The study was conducted in Medani Teaching Hospital (MTH), Medani City, Sudan, during the period January 1997 to December 1999. The study was designed to make any patient presenting to MTH with symptoms and sings suggestive of ectopic pregnancy. All the above patients were admitted to the hospital for management. The history includes the age, residence, duration of marriage, parity, abortion, rhythm of the cycles and the date of the last menstrual cycle. The history also includes the use of intra-uterine contraceptive device, vaginal discharge, venereal disease and past history of laparotomy. Detailed history on symptoms of ectopic pregnancy were included. The clinical examination includes the pulse rate, blood pressure and palor. The chest and the cardiovascular system were examined. The abdomen is also examined for abdominal tenderness and evidence of internal bleeding. We always palpate for a pelvic-abdominal mass or adnexal mass. The cervix was inspected and proper bimanual examination was performed. The investigations include hemoglobin estimation, blood grouping and Rhesus, urine was analyzed and examined for pregnancy test. Some cases were subjected to transabdominal ultrasound. After laparotomy, all specimens were sent for histopathology.

Table 1 - Distribution of patients according to the symptoms of ectopic pregnancy.

Symptoms	n of cases	(%)
Abdominal pain	74	(84.1)
Amenorrhea	86	(97.7)
Vaginal bleeding	70	(79.5)
Vomiting	32	(36.3)
Syncope	20	(22.7)
Shoulder pain	18	(20.4)

Table 2 - Distribution of patients according to signs of ectopic pregnancy.

Signs	n of cases	(%)
Tenderness	78	(88.6)
Positive excitation	78	(88.6)
Adnexal mass	46	(52.3)
Guarding	36	(40.9)
Abdominal mass	22	(25)
Collapse	16	(18.2)