interpretation, due to the therapeutic implications, which are variable in both disease states.

In conclusion, the simultaneous occurrence non-therapy related Philadelphia chromosome negative, CML, and BC in 2 female patients has been reported. The BC was identified earlier than the knowledge that simultaneously present CML was present in these patients, which was discovered incidentally upon working the patients up for breast cancer radical surgery.

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Prevalence of risk factors of coronary heart disease among diabetic patients in Medina city

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Diabetes mellitus (DM) is a common, complex, serious, and costly disease. Nevertheless, it can affect any part or organ of the body, and coronary artery diseases are major contributors to morbidity. Thus, diabetic patients have a high incidence of silent myocardial infarction, and patients with diabetes type II have 2-3 fold more chances for atheroma related diseases.[1,2] The overall prevalence of DM obtained from an epidemiological national study was 23.7% in Saudi Arabia. The prevalence in males and females was 26.2% and 21.5% (p<0.00001). The calculated age-adjusted prevalence for the Saudi population for the year 2000 is 21.9%. Diabetes mellitus was more prevalent among Saudis living in urban areas (25.5%) compared to rural Saudis (19.5%) (p<0.00001),[3] and is expected to increase in the near future. In the Kingdom, DM was a major cause of morbidity in the last 2 decades; apparently due to sudden changes in lifestyle, due to economic development, urbanization and competitive lifestyle, and the same has been observed in the city of Medina. Two studies from Primary Health Care centers in Riyadh, showed that the prevalence of overweight ranges from 35-40.8%, and obesity from 36.5-46%.[4,5] Diabetes mellitus is a major health problem in the Kingdom of Saudi Arabia and its implications has to be studied, especially risk factors of coronary heart disease (CHD) in order to reduce the mortality rate of silent killer among Saudi population.

In a retrospective cross-sectional survey, conducted in 2004, and approved by an ethics committee for research in the Saudi Council for Health Specialties, Riyadh as part of postgraduate dissertation requirement, 262 randomly selected files were reviewed at the mini clinics at primary health care units selected randomly from the city of Medina, Saudi Arabia. Of the 262 files, 251 (95.8%) were included in the study as they fulfilled the inclusion criteria of Saudi nationality and not missing a follow-up appointment for 6 months. They all were diabetics (type I & II) and compared with regard to their control of blood glucose level. The Epi-Info version 6 was used to develop a spread data sheet and analysis. The chi-square and student t-tests were used for data analysis for categorical variables. The level of significance was set at 0.05, and estimated power of study was 80%. The study included 171 (68.1%) males and 80 (31.8%) females, the majority of which were in the age group of 50 years (50.23 ± 14.62 years). Moreover, the majority (80%) was type II diabetic, and almost 50% had the disease for 2-9 years, while almost 79% were either overweight or obese **(Table 1)**.

This study shows that obesity and overweight are highly prevalent among diabetic patients. The overall prevalence of overweight was 37%, and the rate among men was significantly higher than women. The overall prevalence of obesity was 40.2%, and the rate among women was higher than men. These results can be compared with the results of other studies; especially the results of a study conducted in the South West area of the Kingdom, which indicated a high percentage of coronary artery disease (CAD) risk factors, namely: hypercholesterolemia (31%); DM (30%); hypertension (13.8%); family history of CAD (6%); and obesity (45%). The estimated progression of coronary artery

disease (PCAD) rate within 5 years was 4.3%, within 10 years was 9.8%, and within 12 years was 12.25%. The PCAD was significantly higher among males (p=0.0001), and those with 2 or more CAD risk factors (p=0.0001),[4] which showed that overweight among diabetes ranged from 33-40% and obesity ranged from 30-40%. Although males were more overweight than females, however, females were more obese, this could be explained by the fact that females have a more sedentary lifestyle and exercise less. In general, the high BMI in DM could explain its role as a predisposing factor for DM type II as well as risk factor for CHD especially in diabetic patients. While comparing our study results regarding obesity with the national metabolic disease survey,[3] which showed that obesity was found as 16.7% in males and 26.2% in females, however, this study shows that figures of 35.5% in males and 49.9% in females, which are almost twice the national figures. Moreover, the prevalence of hypercholesterolemia in diabetic patients was 35%, males were more affected than females, and these results are comparable with another study,[1] which showed that lipid abnormalities and lipoproteins were almost 30%, however, it differs from the Framingham's study,[6] which showed that females had higher serum cholesterol level in diabetic subjects. Furthermore, hypertension prevalence in diabetic patients was found as 36% overall, and men were more affected as compared to women (odds ration=1.45, 95% confidence internal=0.8-2.65). The smoking prevalence in this study was 14.5% whereas the national survey[3] showed a rate of 21% in the general population from age group 30 years to 64 years. When comparing all risk factor with the duration of disease, BMI, total cholesterol, triglycerides, and smoking showed no significant (p>0.05) difference except hypertension, which was more common among older duration (>10 year) patients (p=0.042). While compared FBS level, obesity class II showed high prevalence in the group with uncontrolled diabetes (7.8%) than the controlled (2%). Evidently, there are potential limitations of our study, however, we tried to reduce bias by random selection of primary health care units and patients' files. However, even then it is warranted that selection of mini clinics produced selection bias due to patients who have diabetes with other severe complications come to the clinic, so the study has missed the bulk of diabetic patients. The sample size was also very small, and there was no control group to compare, again raising questions regarding internal and external validity.

To conclude, the prevalence of risk factors of CHD is much higher among diabetic patients in this study,

Table 1 - Prevalence of risk factors of Coronary Heart Disease among diabetic patients as regard to gender, duration of disease and sugar level.

Risk factors	Gender				Duration of disease (in years)				Fasting blood sugar level (mmol/L)			
	Number (%)											
	Male		Female		≤10		>10		≤8.3		>8.3	
Total cholesterol												
Normal (<5.2 mmol/L)	66	(41.5)	29	(39.7)	73	(43.9)	22	(33.3)	20	(41.7)	73	(40.1)
Borderline (5.2-6.2 mmol/L)	32	(22.0)	20	(27.4)	36	(21.6)	19	(28.8)	12	(25.0)	43	(23.6)
High (≥6.2 mmol/L)	58	(36.4)	24	(32.9)	57	(34.3)	25	(37.9)	16	(33.3)	66	(36.3)
p value	0.6589				0.289				0.930			
Triglycerides												
Normal (<1.7 mmol/L)	52	(33.3)	29	(39.1)	61	(37.4)	20	(29.9)	12	(25.5)	68	(37.8)
Borderline (1.7-2.2 mmol/L)	41	(25.8)	17	(23.0)	38	(23.3)	20	(29.9)	10	(21.3)	47	(26.1)
High (≥2.26 mmol/L)	63	(39.6)	28	(37.8)	64	(39.3)	27	(40.2)	25	(53.2)	65	(36.1)
p value	0.670				0.450				0.090			
Body mass index												
Normal (<25)	43	(25.4)	14	(17.9)	42	(24.1)	14	(19.4)	7	(14.5)	46	(23.8)
Over weight (25-29.9)	66	(39.0)	25	(32.0)	63	(36.2)	28	(38.9)	22	(45.8)	68	(35.2)
Obesity class I (30-34.9)	42	(24.8)	28	(35.9)	48	(27.6)	22	(30.5)	14	(29.9)	56	(29.0)
Obesity class II (35-39.9)	12	(7.1)	4	(5.1)	13	(7.5)	3	(4.1)	1	(2.0)	15	(7.8)
Obesity class III (> 40)	6	(3.55)	7	(8.9)	8	(4.6)	5	(6.9)	4	(8.0)	8	(4.1)
p value	0.106*				0.710				0.20			
Smoking	34	(20.0)	2	(2.5)	24	(13.3)	11	(14.8)	10	(19.2)	25	(12.9)
p value	0.0005*				0.942*				0.370*			
High blood pressure												
>149/90 mmHg	68	(39.7)	25	(31.2)	58	(32.7)	35	(47.2)	24	(46.1)	69	(35.7)
p value	0.245*				0.042				0.180			

*Yates correction

and was found more prevalent in females as compared to males, except for smoking. Therefore, it is strongly recommended to implement a periodic screening program for high-risk patients, as well as the general population, and also start a public awareness program in order to prevent the risk factors at a primary level.

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Light and scanning electron microscopic investigation of the changes in hair with Dyskeratosis congenita

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Dyskeratosis congenita (DC), also called Zinsser-Cole-Engman syndrome, is a rare congenital syndrome characterized by atrophy and a reticular pigmentation of the skin, dystrophy of the nails and leukoplakia together with multisystem ectodermal and some mesodermal changes. The striking feature of the skin is the tan-gray mottled hyperpigmented or hypopigmented macules or reticulated patches that on some areas appear like a fine network. These lesions are located typically on the upper torso, neck, and face, although the extremities may also be involved. Other manifestations of the disease may be hyperhidrosis of the palms and soles, bullous conjunctivitis, gingival disorders, dysphagia resulting from esophageal strictures and diverticula, skeletal abnormalities, aplastic anemia, mental deficiency, and hipersplenism.[1] Besides these manifestations, Yilmaz et al[2] indicated that the diagnosis of DC was made with typical skin lesions, dystrophic toenails, thin and sparse hair, and neutropenia with decreased myelopoiesis in bone marrow. There have been many articles on DC in the literature, but there have been few ultrastructural studies characterizing it. However, the ultrastructural evaluation of the effects of DC in hair have not been shown yet. We aimed to investigate both light and scanning electron microscopy imaging of hair with DC.

Hair specimens were obtained from 2 boys in different ages; one was 7 and the other was 9-year-old. Both children have showed typical clinical manifestations of DC. A total of 22 hair specimens picked from each individual have been examined. These samples were studied by light and scanning electron microscopes. For scanning electron microscopy, hairs were directly mounted on metal stubs, then sputtered with a 100 Å thick layer of gold in a Bio-Rad sputter apparatus. The specimens were examined with a JOEL SEM ASID 10 in 80 Kv.[3] We evaluated hair specimens according to: shaft structure, cuticle pattern, filamentous-keratinized structures, and degeneration. Hair specimens taken from both patients had great similarities. In light microscopy, we examined thin and sparse hair with a longitudinal groove in the hair shaft and multiple patchy corruption of cuticle pattern (**Figure 1a**). In scanning electron microscopic examinations, we found some flattened areas, which disturbed the normal round shape of the hair shaft, and there were some cuticle irregularities in these regions and we also found, longitudinal groove or fissure like shaft changes with cuticular overlapping, the same as light microscopic findings (**Figure 1b & 1c**). Scanning electron microscopic examinations of the hair for different clinical syndromes could still be respected as new. Celik et al[4] found destroyed cuticular pattern and degenerative areas on the surface of hair in Chédiak Higashi syndrome. They also found abnormal proliferation of cuticular cells, deformed hair surface structures in hair with hereditary trichodysplasia.[5]

Our study demonstrates the structural changes of the hair with DC in detail. Although our findings were not pathognomonic for DC, scanning electron microscopy might be used for distinctive diagnosis of DC. It can be used to differentiate hair with DC from other diseases effecting hair surface morphology. Scanning electron microscopy, is a multi-dimensional examination technique revealing easily comparable images. It is indispensable for diagnosis in various