XANTHELASMA PALPEBRUM – A MARKER FOR HYPERLIPIDEMIA IN NIDDM PATIENTS ?

Xanthelasma palpebrum or xanthelasmas as they are commonly known, are yellowish, lipid plaques usually occurring over the eyelids.[1] It has been traditionally believed that Xanthalasmas are a cutaneous marker of hyperlipidemia.[2] However as diabetic patients already have a tendency to hyperlipidemia, it is not clear whether diabetics with xanthelasma have higher lipid levels than those without. We therefore took up a study of serum lipid levels in patients with Non-Insulin Dependent Diabetes Mellitus (NIDDM) with and without Xanthelasma.

A total of 4680 consecutive NIDDM patients seen at the M.V.Diabetes Specialities Centre, Madras during a one year period from 1st May 1993 to 30th April 1994 were during a one year period of Xanthelasma. A total of 47 patients with Xanthelasma were diagnosed. Thus the prevalence of Xanthelasma was 1:1000. These 47 patients which comprised of 37 female and 10 male patients formed the study cohort. Thus, there is a female preponderance in occurrence of Xanthelasma (sex ratio, F:M = 3.7:1).

As controls, a group of NIDDM patients without xanthelasma (n = 47) who were matched by the computer for age, sex and body weight were also studied.

The results of the study were analysed separately in males and females because of the well known differences in lipid levels between sexes.

Table I shows the comparison of the NIDDM patients with and without xanthelasma. It can be seen that there is no significant difference in any of the serum lipid values of male NIDDM patients with and without xanthelasma. In females there was an increase in total serum cholesterol and LDL cholesterol levels in those with xanthelasma and the differences were statistically significant. The HDL cholesterol levels were also lower in female NIDDM with xanthelasma but the differences did not reach statistical significance.

Table 1: Clinical and biochemical profile of NIDDM patients with and without xanthelasmA

	Males		Females	
	With Xanthelasma (n = 10)	Without Xanthelasma (n = 10)	With Xanthelasma (n = 37)	Without Xanthelasma (n = 37)
Cholesterol (mg/dl)	220 ± 50	218 ± 55	222 ± 42	205 ± 36
	P > 0.2 NS		P = 0 .70	
Triglycerides (mg/dl)	176 ± 71	185 ± 105	161 ± 55	161 ± 66
	P > 0.2 NS	P > 0.2 NS		
HDL Cholestrol (mg/dl)	51 ± 17	45 ± 8	36 ± 10	50 ± 12
	P > 0.2 NS	P = .18		
LDL Cholestrol (mg/dl)	138 ± 33	140 ± 39	149 ± 43	122 ± 33
	p > 0.2 NS	P = .005		
VLDL Cholestrol (mg/dl)	36 ± 9	35 ± 11	31 ± 13	
	p > 0.2 NS	P > 0.2 NS		

There was no significant difference in the prevalence of ischaemic heart disease in those with or without Xanthelasma either in males or females.

In summary, the presence of Xanthelasma does not appear to be of any clinical significance in the male NIDDM patients, while in female NIDDM patients it appears to be a relatively weak marker of hypercholesterolemia.

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