

Non Diabetic Lipemia Retinalis –A Rare Case

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ABSTRACT

A rare case of Nondiabetic lipemia Retinalis in a 30 year old female , who presented not only with eruptive xanthomas on hands, legs and high triglycerides but also ocular manifestations described in lipemia retinalis. The blood sugar levels within normal limits. The clinical presentation varies with levels of triglycerides. Lipema Retinalis usually not associated with any ocular symptoms. Lipemia retinalis is a reliable parameter of high levels of triglycerides and should be considered as an important clue while making a diagnosis.

Key wards- hyperlipidemia, retinal vessels, Triglycerides

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INTRODUCTION

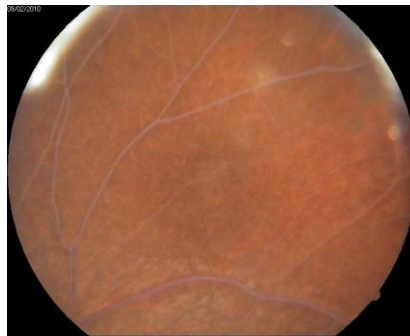
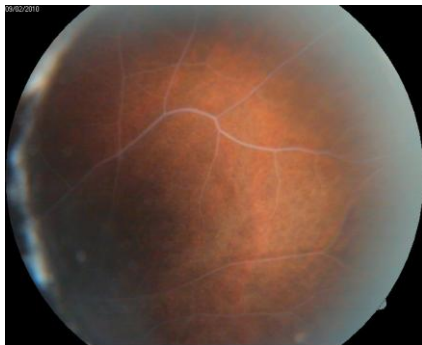
HEYL was the first to describe “Lipemia Retinalis” in 1880. The condition can occur in hyperlipidemia with diabetes and without Diabetes. On fundus examination retinal vessels appear as creamy white. Non diabetic Lipemia Retinalis being a rare case, was selected as a topic for presentation.

CASE REPORT

A 30 year old female referred from Department of Dermatology, King George

Hospital to Govt. regional eye Hospital, Visakhapatnam .AP. for ophthalmological examination. On examination her BCV 6/6 in both eyes. Cornea clear and transparent and pupils of normal size and reacting to light. Intraocular pressure within normal limits. Funds examination show cream colored vessels and few were white mostly in the periphery. (Figure 1, Figure 2)

Figure.1 Peripheral Retinal vessels



Left Eye

Right Eye

Figure 2 Central Retinal vessels.

Cream color appearance of plasma



Figure 3: Lactescent plasma
Levels of triglycerides ie;2390mg/dl and high levels of cholesterol 416mg/dl (table-1)Renal function tests , liver function tests and routine blood examination reports were within normal limits (table-2 , table -3and table -4).

Table 1:Lipid profile.

TG -2390 mg/dl (< 150)
VLDL – 480 mg/dl(<35)
Total cholesterol : 416 mg/dl (<200)
HDL – 26 mg/dl (>40)
LDL – 60 mg

Table 2: Renal function tests

Bl. Urea- 22 mg/dl
Sr. creatinine – 0.8mg/dl

Table 3: Liver function tests

Total S.bilirubin – 0.6 mg/dl
SGOT -16 U/L
SGPT – 10 U/L
ALP – 66 U/L
S. amylase – 41 U/L
S lipase – 13 U/L

Table 4 Routine Investigations

Hb- 11.2 gm%	
TC – 5,300	
DC- P62 L34 E4	ESR -30
mm/1h	
Platelets-1.5 lakh/cumm	
FBS – 60 mg%	
Urine – albumin sugar-NIL	

DISCUSSION

When high levels of Triglycerides present in the blood, Lipemia Retinalis develops. The creamy white appearance of retinal blood Vessels develops when plasma Triglyceride levels are more than 2000mg/dl. The changes in color of the retinal vessels are first noticed in the

Peripheral retina. The peripheral vessels becomes hazy and slightly milky and gradually the appearance spreads towards the disc. The arteries and veins assume a uniform appearance as if filled with milk. But in some cases a salmon color merging into cream is present near the disc. But in all cases the light reflex is diffuse or lost.

GRADING OF FUNDUS

APPEARANCE: Fundus appearance can be graded as follows.

Grade 1: Peripheral Retinal vessels appear as white and creamy.

Grade 2: The creamy colored retinal vessels extend towards optic disc.

Grade 3: All vessels both arteries and veins appear as milky white.

FREDRICKSON et al (1967) proposed five types of Hyperlipidemia based on the changes in plasma Lipoproteins. Triglycerides enter the circulation after absorption from the intestine. These are transported by Chylomicrons .The chylomicrons are the largest lipoprotein molecules .When circulating levels of Chylomicrons are elevated, causes changes in the retinal blood vessels .Thus ,Lipemia retinalis is an important and reliable parameter of high levels of Triglycerides and chylomicrons .so, the Lipemia retinalis should be considered as a significant clue while diagnosing Hyperlipidemias. Lipemia Retinalis was reported in 29 days old baby and 77 days old baby .More than 60 cases have been reported till date.

CONCLUSION: Lipemia Retinalis is a rare presentation and needs complete blood examination and lipid profile.

Patient should be immediately referred to physician for proper care.

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