

EFFECT ON VASECTOMY ON SERUM LIPIDS

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Elevation of serum lipids predisposes to the incidence of ischaemic heart disease in man (Pinto, Thomas, Colaco and Datey, 1970) and the severity of diet-induced atherosclerosis has been shown to be increased in *Macaca fascicularis* following vasectomy (Alexander & Clarkson, 1978). To ascertain whether vasectomy could increase the level of serum lipids in humans, serum lipids of vasectomised and matched control subjects in the post-absorptive state were estimated. The study was conducted on subjects divided into low income (\leq Rs. 500/- per month) and high income ($>$ Rs. 500/- per month) groups as diet influences serum lipids.

Serum Lipid Levels (mg/100 ml)

	Matched Controls				Vasectomised			
	Low Income		High Income		Low Income		High Income	
	M	S.D.	M	S.D.	M	S.D.	M	S.D.
Free fatty acids	8.5	5.8	9.7	6.1	8.7	5.7	10.6	8.2
Triacylglycerol	120	46	160	79	162	70	227	60
Cholesterol	176	33	209	36	195	36	223	50

M = mean value

S.D. = Standard deviation

Serum lipids of vasectomised subjects were elevated above those of control subjects. This increase was most prominent for triacylglycerol.

Estimation of serum lipoproteins indicated a marked increase in pre beta lipoprotein fraction of vasectomised subjects in comparison to control subjects. This increase is probably associated with the greater load of triacylglycerol transported in the sera of vasectomised subjects.

Vasectomised and control subjects of high income group had higher levels of serum lipids when compared with those of the respective low income group.

Serum Lipid Levels of Low Income
Vasectomised Subjects (mg/100 ml)

Age	Free fatty acids		Triacylglycerol		Cholesterol	
	N	S.D.	M	S.D.	M	P.D.
26-35 yrs.	9.4	5.1	191	93	202	44
36-45 yrs.	7.8	4.3	160	62	196	33

Serum lipids in vasectomised subjects of age group 26-35 years were higher than those in the age group of 36-45 years.

The results indicate that there is little risk of ischaemic heart disease due to elevated serum lipids in the vasectomised low income group, but there may be a risk in the high income group.

References :

1. Alexander, N. J. & Clarkson, T.B. (1978). *Science*, 29, 538.
2. Pinto, J. Thomas, P., Colaco, F. & Datey, K. K. (1970). *Proceedings of the Second International Symposium on Atherosclerosis*. Springer-Verlag, New York. p. 328.