

## DTL ASSIGNMENT 4

MOHIT APTE MIS-112103012

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# Serum homocysteine levels in patients with retinal vein occlusion

**Purpose:** To find out role of high serum homocysteine levels in retinal vein occlusion patients at Dr. D.Y. Patil medical College. **Design:** A matched case control type of study was conducted from 2016 to 2018. **Materials and Methods:** Total serum homocysteine (tHcy) was measured in patients coming at Dr. D.Y. Patil medical college, aged 20 years and above. We evaluated the presence of high homocysteine levels in patients with retinal vein occlusion. We evaluated serum homocysteine levels in 50 patients with retinal vein occlusion coming to our clinic. Control subjects consisted of age and sex matched patients that were referred to our clinic for retinal disease other than vascular occlusion. [1] homocysteine levels between 4  $\mu\text{mol/L}$  to 15  $\mu\text{mol/L}$  were considered normal. High homocysteine level was defined as a total serum homocysteine level above 15  $\mu\text{mol/L}$ . **Results:** The mean serum homocysteine level were  $13.80 \pm 8.08$   $\mu\text{mol/L}$  (range, 4–33  $\mu\text{mol/L}$ ) for cases, and  $6.43 \pm 1.38$   $\mu\text{mol/L}$  (range, 4–10  $\mu\text{mol/L}$ ) for controls. [2] The mean serum homocysteine levels in cases were more than double that of controls. This difference was very highly statistically significant. Out of the 50 patients with retinal vein occlusion, 13 (26.00) above normal levels as compared to the controls where none out of the 50 patients had homocysteine levels above normal. (Chi square = 14.94, d.f.=1, p<0.001), This difference was very highly statistically significant. 38 (60) cases and control groups. [3] **Conclusion:** High homocysteine levels is a statistically significant risk factor for retinal vein occlusion and it should be evaluated in every patient with retinal vein occlusion. [4]

# Bibliography

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