

## Validity of Simlified Javal's Rule in 147 Pre-Operation Cataract Eyes

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**Abstract :** Purpose: To evaluate validity of simplified Javal's rule ( $\text{Total Ast} = \text{Corneal Ast} - 0.50 @ 9$ ) in 147 pre-op cataract eyes. Methods: Due to change in lens tissue and structure in a cataract crystalline lens, we conceive the simplified javal's rule may not be valid in cataract cases. In this cross-sectional study, 147 pre-op cataract eyes without oblique astigmatism were enrolled in this study. Ocular biometry (with IOL master 500) and keratometry and refraction findings were recorded. Results: Mean age of our patients was 64.95 yrs/old (SD+ 9.86) that confirms on senile cataract. Mean Axial length and average keratometry were respectively 23.86 and 44.62. Prevalence of systemic diseases diabet and high blood pressure were respectively 43 (29.25%) and 44 (29.93%) and shows importance of these diseases. The Corneal astigmatism axis is correlated with refractive astigmatism in cataract eyes ( $R=0.493$ ). Simplified Javal's rule is valid in cataract eyes ( $P<0.001$ ). Conclusion: Simplified Javal's rule is a valid formula in pre-op cataract eyes and can be used for keratometry results confirmation.

**Keywords :** javals rule, cataract, keratometry, ocular axial length

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