Conclusion

The C4 SNP rs2857009 CC genotype was associated with reduced levels of serum C4 and its mRNA expression. Serum C4 level at baseline was a predictor of treatment response. A cut-off value of &gt;-147.521 was found to predict positive response to treatment from equation $z=-446.87+0.291x$ Baseline C4 levels in mg/dl. Increased age, rs2857009 and HCV genotype were associated with disease progression. The CC genotype of rs2230201 was associated with increased levels of serum C3 levels. Young age, increased C3 level and rs2230201 CC genotype was associated with positive response to treatment. A cut-off value of &gt;10.48 was found to predict positive response to treatment from equation $z=-21.394+(0.602x$ C3 levels)$-(0.152x$Age)$-(9.58xV)$. Increased age and rs2230201 CT genotype was associated with increased risk of progressing to fibrosis.

The carriers of TT genotype of CFH polymorphism rs4658046 are at increased risk of CHC. The rs10922103 AA genotype was associated with poor response to treatment and GA genotype was associated with positive response to treatment.

This study shows that complement system levels may be dictated by their Single Nucleotide Polymorphism which may prove to be important parameter to predict treatment outcome and disease progression in chronic hepatitis C.