DETERMINATION OF SERUM C- REACTIVE PROTEIN LEVELS IN PATIENTS WITH ACUTE ODONTOGENIC INFECTIONS BEFORE AND AFTER TREATMENT, COMPARISON OF THE SAME WITH CONTROL GROUP

By

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ABSTRACT :

Introduction: C - reactive protein is one of the most dynamic acute phase proteins in pentraxin protein family. C – reactive protein concentrations are elevated in almost all inflammatory, infectious and neoplastic diseases. The rapid rise and fall of C – reactive protein with the inflammatory process makes it a much more sensitive indicator of inflammation than ESR and WBC counts. C – reactive protein test is most commonly performed to indicate the presence of acute inflammation and to monitor the development of post operative infections. Quantitative determination of serum CRP concentration can be used to monitor the therapeutic efficacy of different treatment regimens on infections. Thus the present study quantitatively determines the serum C –reactive protein levels in patients with acute odontogenic infection and comparison with that of controls.

Aims and objectives of the study: The aim of the present study was to determine serum CRP levels in patients with acute odontogenic infections and comparison of the same with controls.

Materials and methods – The study was conducted in the medical laboratory of Sri Sai College of Dental Surgery, Vikarabad. The study comprised of a test group of 60 patients with acute odontogenic infections and a control group of 20 patients. Blood samples were collected from all the subjects for the measurement of CRP levels. The Autospan Turbigold CRP kit was used to determine the serum CRP levels. In the study group serum C-reactive protein levels were determined before and after the treatment. The CRP levels were statistically analysed using paired t test and independent sample t test.

Results: A p-value of <0.05 was considered statistically significant. The mean serum CRP levels were observed to be higher in pre treatment (9.72) than the post treatment (6.65) of the test group and is statistically significant ($p<0.001$). The mean CRP levels of pre treatment of test group is significant ($p<0.001$) when compared to the mean CRP levels of the control

group but no significance was found between the post treatment of test group and control group (p=0.413).

Conclusion: Serum CRP levels were increased in patients with acute odontogenic infections. Rapid reduction in serum CRP levels was likely to occur following successful treatment of odontogenic infections.

Keywords: Odontogenic infection, acute phase protein, C-reactive protein.