COMPARISON BETWEEN THE PATHOGENIC ORGANISMS AND THE SELECTIVE ANTIBIOTICS IN HEAD AND NECK SPACE INFECIONS IN DIABETIC AND NON – DIABETIC PATIENTS.

by

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ABSTRACT

Introduction: The spread of infection mainly depends on the areas of least resistance, the host defense mechanism and the virulence of the organism. Diabetics is said to be one of the common systemic illness suppressing the immunity and increasing susceptibility to infection. This study was carried out to compare the space involved, the severity of infection, the organisms isolated, the efficacy of empirical antibiotic, hospital stay and complications in diabetic and non- diabetic patients presenting with maxillofacial space infection of odontogenic origin.

Material and Method: A retro - prospective study was carried out on patients who were diagnosed to have head and neck space infection of odontogenic origin from the Aug 2006 to Sep 2009. The patients were then separated into two groups the:

1) Diabetic *Group*: Patients having a fasting blood glucose level more than 140mg/dl or had a known history of diabetes mellitus were included in the diabetic group.

2) *Non – Diabetic Group:* patients who had normal blood glucose levels at the time of reporting or had no history of diabetes.

Results: A total of 111 patients were identified to have odontogenic space infection out of which 31 were diabetic and 80 were non-diabetic. The most commonly involved space was submandibular in both 38.71% diabetic and 61.25% non-diabetic patients. The most commonly isolated organism from both the group was of streptococcus spp. 16.13% cases in diabetic and in 26.25 % cases in non-diabetics. The empirical antibiotic used was amoxicillin plus clavulanic acid combination along with metrogyl in 70.27 % of all cases. The duration of hospital stay by diabetic patients was found to be significantly longer than

by non – diabetic patients with the mean number of days being 9.5 days and 6.15 days respectively (P = 0.0033).

Conclusion: The presentation of head and neck space infection between diabetic and non-diabetic patients is usually similar when the severity of infection is the same. The same empirical antibiotic therapy (Amoxicillin/ Clavulanic acid and Metrogyl) along with surgical drainage of the infection can achieve similar resolution of the infection in both the groups.

Key words: Head and Neck Space infection, Diabetes Mellitus, Empirical Antibiotic therapy.