International Journal of Psychosocial Rehabilitation, Vol. 18, Issue 02, 2014
ISSN: 1475-7192

Incidence of Medically Compromised Patient's attending Oral Surgery Department for Extraction and Minor Surgery

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Abstract

Objectives:*Minor Oral Surgery and Teeth Extraction in medically compromised patients need special care and care. Aim of this study was to analyse the incidence of medically compromised patients attending oral surgery department for teeth extraction and minor oral surgery.*

Materials and Methods:*Patients with medically compromised conditions were sub-divided into. This study was conducted with the following aim & objectives: 1.To assess the incidence of medical conditions in patients 2. To assess the type of medical condition and age group 3. To estimate the statistical significance and compare with similar studies.*

Results: *Diabetes mellitus was the most common Co morbidity Affecting the people which was found to be statistically significant (p=<0.05). The second frequent medical condition in our population was hypertension and the third prevalent medical condition was anemia which was more commonly observed in females (31.42%) which were found to be statistically significant (p=<0.05).*

Conclusion:*The management of medically compromised patients in dental care is a specialty in itself. A dentist must master it in order to provide proper and comprehensive care through referral, treatment modification, and appropriate drug modifications. At the same time, the dentist must be well prepared to tackle any undue consequences or complications. Gathering complete medical history and careful clinical examinations are imperative to avoid complications and render effective dental care.*

Keywords:*Medically compromised patients, co-morbidities, teeth extraction, minor oral surgery*

Introduction:

Patients seeking dental care have significant medical problems. It is crucial to factor these in the treatment in order to manage it effectively and ensure its progress. To provide optimal care, it is important for the clinician to be aware of the type of medical condition the patient has. Amendments of dental supervision due to conciliating

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medical circumstances are required to offeroutstanding oral treatment.[1] People today live longer due to progression in medical science and technology. Consequently, such patients may have complex dental trouble due to the age factor.Such patients may embodydissimilarmorbidity conditions which occasionallymight be unfamiliar to them. Dental healing may sometimes be customizedfor that reason. Precise medical records assist the expert to settle onthe safe treatment for a patient in particular. Medical records are very crucialforprotectedsupervision of patients.[3]

Dental treatment of a patient could possiblyrequire to be attuned according to medical necessities of that patient. Acquaintance and attentiveness of the medical silhouette of patients obtained through exacttherapeuticrecord taking are vital in protected patient healing by medicos.[4]

The proportion of the elderly population continues to rise (led by factors enhancing longevity such as advances in medical technology, greater access to medical facilities and better socioeconomic conditions), as evidenced by the increase in life expectancy in many parts of the world. Thereis a higher probability of patients with medically yielding circumstances as the number of the elderly in the population continues escalating. While dentists treat such patients, there are apprehensions that patients should be attentive of upshots of such treatment.

However, there areresearcheswhich settle onoccurrence of medically challenged patients going throughvarious small oral surgeriesand teeth extraction. So the aim of this study was to analyse the Incidence of medically compromised patients attending oral surgery department for teeth extraction and minor oral surgery.

Materials and Methods:

The demographic data and medical profiles of patients were recorded in self-prepared charts. Age and sex were included under demographic data. Information on type of medical condition (present and past), drug history and associated dental treatment previously rendered was also recorded. Medically compromised conditions were classified into 11 categories: cardiovascular diseases, endocrine disorders, respiratory disorders, hematologic disorders, neurological disorders, infectious disorders, skeletal disorders, gastrointestinal disorders, renal disorders, drug allergies, and liver disorders. Medical conditions that were inappropriately documented/presented by the patient vaguely were categorized as “others”.

The present work is a cross-sectional study that encompassesthrough medical cases of the pastobtained for 350 patients frequently coming to the dental teaching hospital from the period of January 2013 to July 2014.

Patients displaying any medical situation that was consideredproblematic and resolute to be a threat for the treatment were referred for further consultation before the commencement ofsurgical procedure.

To establishdifferentiationamidsexes, chi square was deployed in the study. A p-value less than 0.05 was measured statistically important. The data were storedon Spreadsheet of MS Excel and evaluated by means of the SPSS (Chicago, IL, USA) software version 18.0.

Results:

Of the 350 patients included in the study group, 70% were males and 30% were females, whose ages varied between 20 and 70 years. More than half of the patients (264) had one or more medical conditions (52.8%). Most of the patients were in the agegroup of 20 -35 (50.8% patients) years. (Figure 1 & 2)

In our Findings, Diabetes Mellitus was the most common co morbidity affecting which was found to be statistically significant (p=<0.05). Male patients affected with the Diabetes Mellitus were 37% and females were 25.71%. Hypertensive males were 30 % and female were 25.42%. The second frequent medical condition in our population was hypertension and the third prevalent medical condition was anemia which was more commonly observed in females (31.42%) which were found to be statistically significant (p=<0.05).The prevalence of other medical conditions in our study was Ischaemic Heart diseasewhich were noted in 18.57% in male and 20 % in females. Other systemic diseases reported were Significant Musculoskeletal Disorders, which were observed in 21.14 % in males and 20 % in females. 13.14 % male and 14 % females were suffering from Respiratory disease. Neurological Systems were noted 18.28% in males and 8.85% in females. 9.14% males were affected with Liver Disorders and 7.71 % females were affected with same disease. 6 % males and 9.71 % females affected with thyroid disease (p=<0.05). 4% male patients had renal disease and 2.57% females hadrenal disease. (Table 1)

Figure1: Distribution of the patient population according to age

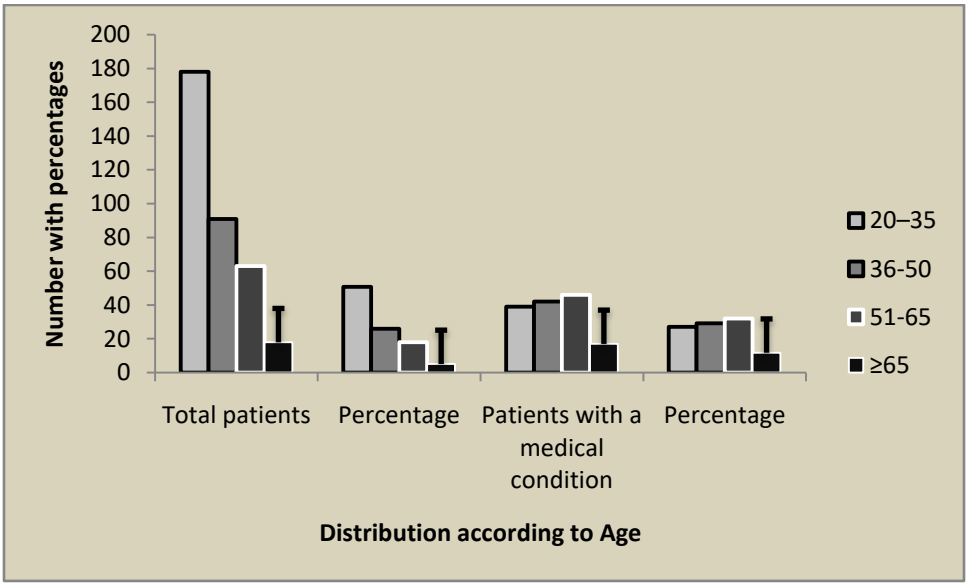

Figure 2: Distribution of the studied patient population according to gender

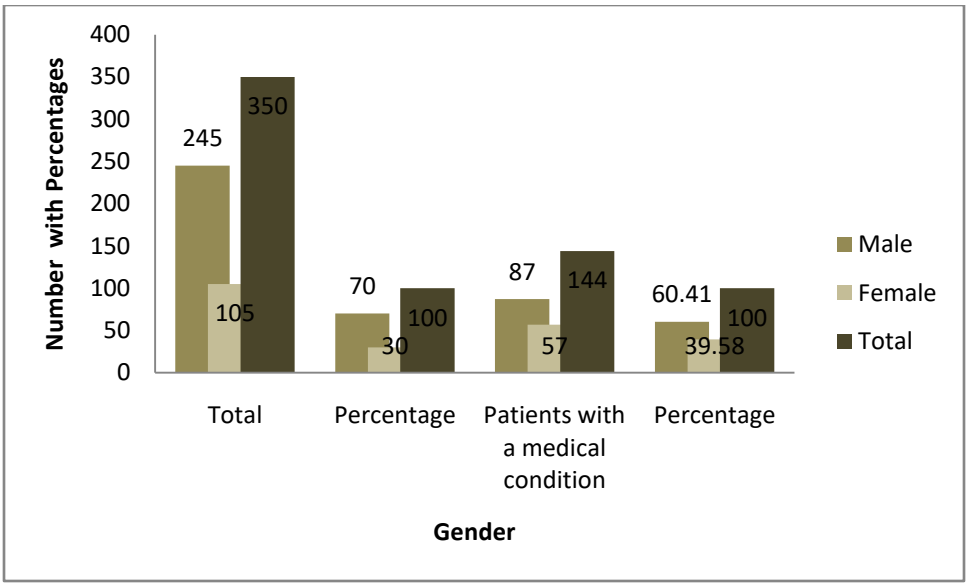

Table 1: Comparison of medically compromised conditions between genders

Co morbidity N=350	Prevalence among Males N (%)	Prevalence among Females N %	P Value
Hypertension	105 (30)	89(25.42)	0.00
Diabetes Mellitus	130 (37.1)	90 (25.71)	0.000614
Ischaemic Heart disease	65 (18.57)	70 (20)	0.009
Anaemia	65 (18.57)	110 (31.42)	0.00
Significant Musculoskeletal Disorders	74 (21.14)	70 (20)	0.00
Respiratory System	46 (13.14)	49 (14)	0.34
Neurological System	64 (18.28)	31 (8.85)	0.165

Thyroid Disorders	21 (6)	34 (9.71)	0.007
Liver Disorders	32 (9.14)	27 (7.71)	0.796
Renal Disorders	14 (4)	9 (2.57)	0.217

DISCUSSION:

It is the responsibility of the dentist to prevent disability, aggravation of a medical disorder, or death of a patient during the course of treatment. To ensure this, it is imperative to start with a pertinent medical history. The changes and advancements in dental care have been significant. The scope of dentistry has expanded considerably from merely centering on the teeth to the diagnosis and treatment of the entire craniofacial complex. This makes it incumbent on dentists and dental practitioners to upgrade their knowledge with the latest advances in this specialty. Only comprehensive knowledge and its application will help lower the risk of complications associated with medical conditions during treatment. Dental care is usually fraught with anxiety and apprehension among patients. These strong emotions trigger the release of the hormone endogenous epinephrine, which aggravates medical conditions such as hypertension, hyperthyroidism, bronchial asthma and adrenal crisis. Delay in diagnosis and treatment can have fatal consequences.

In order torecognize patients with medically challenged situation, a meticulous record keeping of the past and physical assessment of every patient is very vital. Patients already taking composite drugs may possibly force amendment of the dental treatment procedureparticularly if surgical cure is designated.[6,7]Dental setting is considered as a taxingsituation for certain patients. It would be advantageous to decreasestrain in the process of dental setting whileparticularlywith hypertensive patients. There are two dissimilarwaysto draw out patient's medical record conventionally deployed in dental practice: one is to hold interviews and the other is self-reporting of the patient.[9,10]Customarypractice of obtaining medical history was used in the approach.

In our Findings, hypertensive male were 30 % and female were 25.42% were noted in our study and male affected with the Diabetes Mellitus were 37% and female were 25.71% were noted so Diabetes Mellitus was the most common Co morbidity Affecting the people which was found to be statistically significant (p=<0.05). Periodontal ailment is one of the chiefimpediment of diabetes mellitus, and therefore could perhaps have originated these sufferers to pay visit to the Oral Surgery department.[11,12]Additionally, it has been observed that treating periodontal ailment could manifest in enhanced glycemic control.[13,14]Hence, it is essential for oral wellbeing experts and medicos to be attentive of the signs and indications of diabetes and to refer patient for consultation.

The second frequent medical condition in our population was hypertension and the third prevalent medical condition was anemia which was more commonly observed in females (31.42%) which were found to be statistically significant (p=<0.05).The prevalence of other medical conditions in our study was Ischemic Heart disease which were noted in 18.57% in male and 20 % in females. Dhanuthai K et al., observedfrequency of 12.2%.Smeets et al,

exposed the occurrence of medically challenged patients from the review of 29,424 dental sufferers from Netherlands with 28.2%.[15]Umino et al., observed that one or more medically challengedsituations were come across in 64.2% of aged Japanese populace.[16]Rhodus et al.,stated that the commonness of medical circumstance in dental patients amplified from 7.3% to24.6% in a time span of 1976 to 1986.[17]Saengsirinavin et al.,revealed the occurrence of medical situations in Thai dental sufferers to be 55.45%.[18]Our data suggests that a noteworthysegment, about 1/4th of patients attending dental OPD has medical comorbidities, therefore thedentistshould be painstakinglyresponsive of patients' medical situationprior to proceeding for dental healing.

E.G. Absi et al. state that hospital departments of oral and maxillofacial surgery contribute substantially to both managing and treating medically compromised dental patients[19]. E.A. Georgakopoulou et al., in their review on dental management of patients before and after renal transplantation, stated that patients who undergo transplantation require special dental care[20]. As these patients are under anti-coagulants or immunodepressants, they are more susceptible to systemic and stomatological diseases. This makes consultation with a nephrologist, coagulation factors assay and close monitoring mandatory[21]. Most systemic diseases are not confined to just one organ system and affect many. As such, a multi-disciplinary approach in patient management is essential.

CONCLUSION:

Based on the results of this present study, the author concludes that Diabetes Mellitus is the most common medically compromised condition followed by Hypertension in patients visiting Oral Surgery Department.

REFERENCES:

1. Radfar L, Suresh L. Medical profile of a dental school patient population. J Dent Educ. 2007; 71:682–6.
2. Dhanuthai K, Sappayatosok K, Bijaphala P, Kulvitit S, SereeratT. Prevalence of medically compromised conditions in dental patients. Med Oral Patol Oral Cir Bucal.2009; 14:287–91.
3. Brady WF, Martinoff JT. Validity of health history data collected from dental patients and patient perception of health status. J Am Dent Assoc 1980; 101:642-5.
4. Jainkittivong A, Aneksuk V, Langlais RP. Medical health and medication use in elderly dental patients. J Contemp Dent Pract. 2004; 5:31–41.
5. Almas K, Awartani FA. Prevalence of medically compromised patients referred for periodontal treatment to a teaching hospital in Central Saudi Arabia. Saudi Med J 2003; 24:1242-5.
6. Margaix Muñoz M, Jiménez Soriano Y, PovedaRoda R, Sarrión G. Cardiovascular diseases in dental practice. Practical considerations. Med Oral Patol Oral Cir Bucal. 2008; 13:296–302.
7. JoverCerveró A, Bagán JV, Jiménez Soriano Y, PovedaRoda R. Dental management in renal failure: Patients on dialysis. Med Oral Patol Oral Cir Bucal.2008; 13:419–26.
8. Jover-Cerveró A, PovedaRoda R, Bagán JV, Jiménez Soriano Y. Dental treatment of patients with

coagulation factor alterations: An update. Med Oral Patol Oral Cir Bucal.2007; 12:380–7.

9. Ho AW, Grosi SG, Dunford RG, Genco RJ. Reliability of a self-reported health questionnaire in a periodontal disease study. J Periodont Res. 1997; 32:646–50.
10. Boissonnault WG, Badke MB. Collecting health history informa¬tion: the accuracy of a patient self-administered questionnaire in an orthopedic outpatient setting. PhyTher. 2005; 85:531–43.
11. Mealey BL. Periodontal disease and diabetes. A two-way street. J Am Dent Assoc 2006; 137:26S-31S.
12. Löe H. Periodontal disease. The sixth complication of diabetes mellitus. Diabetes Care 1993; 16:329-34.
13. Grossi SG, Skrepcinski FB, DeCaro T, Robertson DC, Ho AW, Dunford RG, et al. Treatment of periodontal disease in diabetics reduces glycated hemoglobin. J Periodontol 1997; 68:713-9.
14. Southerland JH, Taylor GW, Offenbacher S. Diabetes and periodontal infection: Making the connection. Clin Diabetes 2005; 23:171-8.
15. Smeets EC, De Jong KJ, Abraham-InpijnL. Detecting the medically compromised patient in dentistry by means of the medical riskrelatedhistory.A survey of 29,424 dental patients in The Netherlands. Prev Med.1998; 27:530–5.
16. Umino M, Nagao M. Systemic diseases in elderly dental patients. Int Dent J.1993; 43:213–8.
17. Rhodus NL, Bakdash MB, Little JW, Haider ML. Implications of the changing medical profi le of a dental school patient population. J Am Dent Assoc. 1089; 119:414–6.
18. Saengsirinavin C, Kraivaphan P, Phumara P. Survey of drug used and medical history among dental out-patients. J Dent Assoc Thai.1990; 40:68–74.
19. Almas K, Awartani FA. Prevalence of medically compromised patients referred for periodontal treatment to a teaching hospital in Central Saudi Arabia. Saudi Med J. 2003; 24(11):1242–5.
20. Absi EG, Satterthwaite J, Shepherd JP, Thomas DW. The appropriateness of referral of medically compromised dental patients to hospital. Br J Oral Maxillofac Surg. 1997; 35(2):133–6.
21. Georgakopoulou EA, Achtari MD, Afentoulide N. Dental management of patients before and after renal transplantation. Stomatologija. 2011;13(4):107–12.