Prevalence of Medical Problems among Patients Attending a Dental School in India-A Cross Sectional Study

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Abstract

Introduction: Patient visiting a Dental OPD (outpatient department) with medical conditions may have impact on oral findings and needs modifications in the dental treatment.

Aim: The aim of this study was to assess the medical profile of patients seeking dental treatment.

Materials and Methods: The study included 1615 routine OPD (Outpatient department) patient visiting the department of Oral Medicine & Radiology, Surendera Dental College & Research Institute, Sri Ganganagar, Rajasthan (India) during the period from September, 2014 to November, 2014. The age range of the study population was from below 20 years to above 60 years, divided into four age groups. Total 18 medical conditions along with duration and medication was recorded for the study population in detailed case history. Results were evaluated to see which medical problem is most prevalent and to assess its relation to age, gender, BMI (Body Mass Index), and demographic status.

Results: Out of total dental study population of 1615, 832(51.52%) were with medical problem and 783(48.48%) were without medical problem. Those with medical problems, 369(44.35%) were males and 463(55.65%) were females. 521(62.62%) were taking medication and 311(37.38%) were not under any medication. 832 patient with medical condition had total of 1123 medical condition. 270 patient(32.45%) had multiple medical conditions(range of 1-5 medical conditions). Overall the first five most prevalent medical conditions reported in descending order were Gastrointestinal (21.64%), Hypertension (20.12%), Arthritis (15.31%), Diabetic (11%), and Anemia (6.59%).

Conclusions: The results of this study reflect the medical complexity of the growing aging population. Dentists should bear in mind that some of the patients may harbor such conditions which are contraindicated for certain dental procedures or medication or require special attention when treating these patients. Therefore, a thorough history taking and careful clinical examinations are mandatory before commencing any dental treatment.

Key Words: Dental patient, Medical condition, Dental education, India, Dental school, Case history

Introduction

People now have a longer expectancy, due to the improvements in health science. With increasing age, people tend to develop more systemic diseases and oral health problems. Patients visiting dental clinics may have systemic medical condition and are on medication or without medication. Many of these systemic conditions have manifestations in the oral cavity. Also the patients which are taking medications, mostly under polypharmacy may show oral manifestation and drug interactions [1]. The goal of dental management is to provide safe and most effective therapy without any complication. Medical conditions may alter dental treatment because of direct effects on oral tissues, bacteremia, altered hemostasis, compromise of the immune system, and drug interactions. Systemic disease can also lower a patient's tolerance to dental interventions or limit the patient's ability to maintain adequate oral hygiene [2]. But there is an insufficient data concerning the prevalence of medically compromised conditions in dental patients and obtaining a proper medical history from a patient is a difficult task since most of the patients attending the dental clinic in have little or no idea about their medical problems. Knowledge of the medical status of patients obtained through proper medical history-taking is fundamental to safe patient management. Therefore Oral physician must be able to obtain thorough medical history of the routine dental patient. Therefore, the purpose of this study was to examine the self-reported prevalence of medical conditions in routine patients visiting a dental school in India.

Aim

To determine the prevalence of medical problems with medication usage in dental patients.

Objectives

1. To evaluate which medical problem is most prevalent in dental school study population.
2. To assess its relation to age, gender, BMI, and socioeconomic status.

Materials and Methods

A total of 1615 patients who attended the outpatient department (OPD) of Oral Medicine and Radiology, Surendera Dental College and Research Institute, SriGanganagar (Rajasthan),

India, from September, 2014 to November, 2014 were included in the study. The study was approved by the Institutional ethical committee (IEC). Informed written consents of all the patients were taken. In cases where patient was minor, parental consent was obtained. The patients were categorized into four age groups: 0-20years (Group-I), 21-40 years (Group-II), 41-60 years (Group-III), and 61years and over (Group-IV). The detailed case history of all the patients was recorded in a structured proforma made for the purpose of this study, which included demographic data (age, gender, location whether urban or rural and Body mass index), medical conditions with duration, medication taken. Patient's case history was recorded by specially trained Interns, Post-graduates students and the Faculty members, maintaining patient privacy and confidentiality. Body Mass Index (BMI) was calculated as weight (kg) divided by height (m) squared (kgm²) and categorized as: Underweight (BMI<18.5), Normal weight (18.5–24.9), Overweight (25–29.9), Obesity (BMI ≥ 30). Medical conditions were categorized systemically, and medications were categorized based on their therapeutic classifications. The types of medical conditions were categorized as: Hypertension, Diabetes, Gastrointestinal Disease, Respiratory Disease, Cardiac Disease, Drug Allergy, Anemia, Arthritis, Thyroid Disorders, Liver Disease, Renal Disease, Malignancies, Bleeding Disorders, Epilepsy, Psychological Disorders, Skin Disorders, HIV/AIDS and Pregnancy. Duration of the medical conditions was recorded as acute (duration<3months) and chronic (duration >3 months) [3]. Patients with any finding that was questionable and determined to be a potential modifying factor in treatment were referred for consultation to their physicians. The data were transferred to Microsoft Excel spreadsheet and analyzed using Statistical Package for Social Sciences software (SPSS for Windows, version 20.0, Chicago, IL, USA). One-sample t-test was conducted to find correlation between Body Mass Index (BMI) with various age groups. Pearson correlation statistical analysis was done to find correlation between age groups and various medical conditions among both the genders. P-value less than 0.05 were considered statistically significant.

Results

There were total of 1615 [Male=870 (53.86%) and Females=745 (46.14%)] patients in the study population, divided in four age groups as Group-I (less than 20 years), Group-II (21-40 years), Group-III (41-60 years) and Group-IV (greater than 60 years). A significant correlation (p<0.05) was found among distribution of males in different age groups; whereas correlation was found to be insignificant (p>0.05) for females.

Urban patient were 935 (57.90%) and rural patient were 680 (42.10%). Patient belonging to urban and rural areas showed a significant correlation. Gender, area (urban and rural) and medical condition wise distribution of the population in all the four groups has been shown in the *Table 1*. Out of total dental study population, 832 (51.52%) were with medical condition and 783 (48.48%) were without medical condition. Those with medical problems, 369 (44.35%) were males and 463 (55.65%) were females. In Group I, 25 (3%) in Group II 278 (33.41%), in Group III 360(43.27%) and in Group IV 169(20.31%) patient has medical conditions, respectively. There was no significant correlation found among patient with and without medical problems. (p-value>0.05).

Patient reporting with medical condition, 30 (3.60%) had acute medical condition and 802 (96.4%) had chronic medical condition (as per the criteria used). Acute medical conditions were more in Group II and Chronic conditions were more in Group III. Both acute and chronic medical conditions were

Table 1. *Gender distribution in various age groups for area and medical problem and their intergroup correlations.*

Age group (years)	Gender distribution			Area						Medical problem					
	M	F	T	Urban			Rural			Yes			No		
				M	F	T	M	F	T	M	F	T	M	F	T
< 20	152	94	246	100	66	166	52	28	80	13	12	25	139	82	221
21-40	321	322	643	195	180	375	126	142	268	94	184	278	227	138	365
41-60	268	258	526	145	139	284	123	119	242	157	203	360	111	55	166
>60	129	71	200	75	35	110	54	36	90	105	64	169	7	24	31
Total	870	745	1615	515	420	935	355	325	680	369	463	832	484	299	783
Mean	217.50	186.25	403.75	128.75	105.00	233.75	88.75	81.25	170.00	92.25	115.75	208.00	121.00	74.75	195.75
SD	91.99	122.98	214.93	52.82	66.34	118.86	41.31	57.73	98.81	59.55	92.58	144.93	90.66	48.37	138.22
t-test	4.73	3.03	3.76	4.88	3.17	3.93	4.29	2.82	3.44	3.09	2.50	2.87	2.67	3.09	2.83
p-value	0.018*	0.056**	0.033*	0.016*	0.051*	0.029*	0.023*	0.067**	0.041*	0.053*	0.088**	0.064**	0.076**	0.054*	0.066**

*p-value ≤ 0.05 is significant; **p-value > 0.05 is insignificant.

Table 2. *Gender distribution in various age groups for BMI, duration of medical problem and medical status of patient. Distribution and correlation of patients with different medical status in acute and chronic conditions.*

Age group (yrs)	BMI (W/H²)					Duration						Medical status					
						Acute			Chronic			On medication			Without medication		
	M	F	T	t-test	p-value	M	F	T	M	F	T	M	F	T	M	F	T
< 20	18.84	19.65	19.24	82.29	0.000*	02	02	04	11	10	21	6	6	12	7	6	13
21-40	24.13	23.89	24.01	346.55	0.000*	04	13	17	90	171	261	55	82	137	39	102	141
41-60	25.16	25.87	25.52	124.49	0.000*	05	02	07	152	201	353	103	136	239	54	67	121
>60	24.86	24.95	24.90	956.56	0.000*	02	00	02	103	64	167	84	49	133	21	15	36
Mean	23.25	23.59	23.42			13	17	30	356	446	802	248	273	521	121	190	311
SD	2.97	2.75	2.85														

*p-value < 0.001 is highly significant.

more prevalent in females. And 521 (62.62%) were taking medication and 311 (37.38%) were not under any medication. One-sample t-test was conducted to find correlation between BMI with various age groups. The correlation was found to be highly significant (p<0.001) *(Table 2)*.

832 patients with medical condition had total of 1123 medical conditions. 270 patients (32.45%) had multiple medical conditions (more than two medical conditions). Maximum number of medical conditions group-wise was 2,5,4,4 respectively. Overall, the most prevalent medical condition as reported were Gastrointestinal (21.64%), Hypertension (20.12%), Arthritis (15.31%), Diabetic (11%), Anemia (6.59%), Respiratory (6.5%), Cardiovascular (4.54%), Renal (2.31%), Skin disorders (2.31%), Psychological

(1.96%), Thyroid Disorders (1.96%), Drug allergy (1.87%), Liver Diseases (0.98%), Malignancy(0.89%), Epilepsy (0.80%), Pregnancy (0.71%), HIV/AIDS (0.09%). The first three most common medical condition in Group I were anemia (14.8%), arthritis (14.8%), Skin disorder (14.8%), In Group II, Gastrointestinal (30.37%), Hypertension (16%), Arthritis (13.18%), In Group III, Hypertension (21.34%), Gastrointestinal (20.35%), Arthritis (16.2%) and in Group IV, Hypertension (25.72%), Diabetic (18.57%), Arthritis (16.6%). Pearson correlation statistical analysis was done to find correlation between age groups and various medical conditions among both the genders. A statistically insignificant correlation was found among all the age groups and medical conditions (p-value>0.05) *(Table 3)*.

Table 3. Gender wise distribution of patients with different medical conditions in various age groups and their intergroup correlation.

Medical conditions	< 20			21-40			41-60			>60		
	M	F	T	M	F	T	M	F	T	M	F	T
Hypertension	0	0	0	12	44	56	37	71	108	35	27	62
Diabetic	0	0	0	08	07	15	38	27	65	29	15	44
Gastrointestinal	1	2	3	35	71	106	43	60	103	18	13	31
Respiratory	0	2	2	02	16	18	18	13	31	15	7	22
Cardiovascular	0	0	0	02	02	04	17	13	30	9	8	17
Drug allergy	0	0	0	02	07	09	5	7	12	0	0	0
Anemia	0	4	4	02	33	35	4	25	29	3	3	6
Arthritis	2	2	4	13	33	46	32	50	82	21	19	40
Thyroid disorders	1	1	2	01	09	10	2	6	8	0	2	2
Liver disease	2	0	2	00	03	03	3	2	5	0	1	1
Renal disease	0	0	0	05	07	12	5	5	10	3	1	4
Malignancy	0	0	0	05	01	06	1	1	2	1	1	2
Bleeding disorders	0	0	0	02	02	04	0	0	0	0	0	0
Epilepsy	3	0	3	04	00	04	1	1	2	0	0	0
Psychological	2	1	3	05	02	07	2	5	7	2	3	5
Skin disorders	3	1	4	04	02	06	7	3	10	3	2	5
HIV/AIDS	0	0	0	00	01	01	0	1	1	0	0	0
Pregnancy	0	0	0	00	07	07	0	1	1	0	0	0
TOTAL	14	13	27	102	247	349	216	290	506	139	102	241
Pearson correlation coefficient (r)	1			0.773			0.952			0.981		
p-value	-			0.438*			0.199*			0.125*		

*p-value > 0.05 is insignificant

Table 4. Gender wise distribution of patients with and without medication, suffering with different medical conditions in various age groups.

Medical conditions	< 20				21-40				41-60				>60			
	On medication		Without medication		On medication		Without medication		On medication		Without medication		On medication		Without medication	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Hypertension	0	0	0	0	8	33	4	11	34	64	3	7	32	25	3	2
Diabetic	0	0	0	0	7	7	1	0	35	27	3	0	25	14	4	1
Gastrointestinal	0	1	1	1	10	49	25	22	13	24	30	36	9	7	9	6
Respiratory	0	1	0	1	2	11	0	5	10	10	8	3	13	4	2	3
Cardiovascular	0	0	0	0	2	2	0	0	17	12	0	1	9	8	0	0
Drug allergy	0	0	0	0	1	2	1	5	1	4	4	3	0	0	0	0
Anemia	0	1	0	3	0	9	2	24	4	7	0	18	2	2	1	1
Arthritis	1	2	1	0	8	10	5	23	18	32	14	18	15	11	6	8
Thyroid disorders	1	0	0	1	1	9	0	0	1	6	1	0	0	0	0	2
Liver disease	1	0	1	0	0	3	0	0	3	1	0	1	0	1	0	0
Renal disease	0	0	0	0	2	4	3	3	2	3	3	2	3	1	0	0
Malignancy	0	0	0	0	3	0	2	1	0	1	1	0	1	1	0	0
Bleeding disorders	0	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0
Epilepsy	2	0	1	0	3	0	1	0	1	1	0	0	0	0	0	0
Psychological	0	0	1	2	5	2	0	0	2	4	0	1	2	2	0	1
Skin disorders	1	0	2	1	3	1	2	0	8	3	0	0	2	1	1	1
HIV/AIDS	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Pregnancy	0	0	0	0	0	1	0	6	0	0	0	1	0	0	0	0
TOTAL	6	6	8	7	57	144	45	103	149	199	67	91	113	77	26	25

Out of 1123 medical conditions found in 832 patients, patients had medication for the 751(66.87%) medical conditions and 372 (33.13%) medical conditions were without any medication. Gender wise segregation of patient with medical condition with or without medication is shown in *Table 4*.

Discussion

Out of total 1615 patient (M=870, F=745), maximum number of patient were in the age group of 20 to 40 years (Group I) followed in group III, group I, group IV in decreasing order. As expected, young patients are more concerned, as seen in group II and Group III. This was in accordance with previous studies conducted [2,4].This may be due to the fact that younger and middle-aged people who have systemic medical conditions have a tendency to come to the dental school for their dental care. In addition, the older population tends to have more complex medical conditions that may prevent them from coming to the dental school for treatment [5].

Overall male (53.86%) dental patients were more than females (46.14%). This difference most likely reflects complex socioeconomic factors and personal preferences that are inherent to any heterogeneous population structure [6]. Also the urban population over numbered the rural population. This may be due to more awareness regarding dental problems, accessibility and higher education level of urban population. Much has been written about the underlying mechanisms through which education may operate to affect disease. One hypothesis we find most plausible is that education may protect against disease by influencing life-style behaviors, problem-solving abilities, and values. Moreover, education may facilitate the acquisition of positive social, psychological, and economic skills and assets, and may provide insulation from adverse influences [7].

Out of total study population, 832 (51.52%) patient had reported with at least one medical condition. These data fall within the range (10-69 percent) reported in the literature, based on diverse patient structure and using different methodologies [2,8-10]. Rhodus et al. [11] reported that the prevalence of medical conditions in dental patients increased from 7.3% in 1976 to 24.6% in 1986. Smeets et al. [12] revealed the prevalence of medically compromised patients from the survey of 29,424 dental patients from the Netherlands to be 28.2%. Saengsirinavin et al. [13] disclosed the prevalence of medical conditions in Thai dental patients to be 55.45%. These variations may be due to several factors including age, sex, sample size, methodology, and disease category involved in the study [14].

Number of medical problems ranged from 1-2 in group I, 1-5 in group II, and 1-4 each in group III and Group IV. Multiple medical conditions were more in females than in males, showing females are more prone to complex medical conditions.

These multiple medical condition led to a total of 1123 conditions in 832 patients with medical conditions. As per patient reporting in four group, in group I 10.16%, in group II 43.23%, in group III 68.44% and in group IV 32% patient were reported with medical conditions. In first three groups, as the age increases, number of medical conditions increases.

This is in agreement with other studies [5,14,15]. But in group IV, less number of patients reported with medical conditions, this may be due to less number of patient reporting to dental OPD in this age, due to lowered interest of patient towards dental treatment in this age. As aging is associated with progressive loss of memory, there is also a possibility that older patients did not report all of their medical conditions while at the dental clinic [5].

Gender wise, females had reported with more medical problems than male (F: M, 463:369 patients). This is in agreement with other study by Gaphor SM et al. [15] and by Dhanuthai et al. [16] where medically compromised conditions were more prevalent among females than males. This phenomenon may be attributable to the fact that females pay more attention to both general health and oral health than males [15].

Body mass index (BMI) was more among group II patient. Mean BMI was slightly more in females in all the groups. There was highly significant correlation between BMI, gender in the four groups. Regarding duration of medical condition, patient with chronic conditions were more (96.4%) than acute medical conditions (3.6%). This shows that more number of patients is burdened with chronic problems and hence prolonged medical treatments, leading to more distress. This also led to growing demand for medications [1].

Out of total patient who reported with medical problem, 62.62% were under medication and rest of the patient were not taking any medication for the medical condition they had. In the study conducted by Aggarwal et al, [4] 45% of the patients were taking one or more medication per day. The increasing incidence and prevalence of systemic diseases, especially chronic diseases, among older adults have also led to a growing demand for medications. In a study by Heft MW et al. [17] on average, 40 percent of the seniors were taking at least three medications per day. This was reflected in study conducted by Radfar L et al. [1] as more than half of the patients were taking one or more drugs (51%). Both the categories of patient are of concern to dental practitioners, as in patient who were under some medication, dentist should know what type of medication the patient is taking, their interactions with medicine prescribed during dental treatment and contraindications and allergy, if any. And second category patient who are not under any medication, despite having the medical problem, poses greater risk as the diseases severity and extent of involvement is not known, and some time lead to medical emergencies. So both the categories highlight the importance of detailed medical/drug history and appropriate medical consultation.

Overall the most common medical condition reported (in decreasing order) were Gastrointestinal, Hypertension, Arthritis, Diabetic and Anemia, Respiratory, Cardiovascular, Renal, Skin disorders, Psychological, Thyroid Disorders, Drug allergy, Liver Diseases, Malignancy, Epilepsy, Pregnancy and HIV/AIDS. The first three most common medical condition in Group I were anemia, arthritis, Skin disorder, In Group II, Gastrointestinal, Hypertension, Arthritis, In Group III, Hypertension, Gastrointestinal, Arthritis and in Group IV, Hypertension, Diabetic, Arthritis. This finding is in contrast to previous studied where the hypertension and diabetes were

the most common medical conditions reported [4,8,11,12]. This may be due to fact that most of previous studies have been done of elderly patients, whereas in the present study, patient from all the age groups has been included. Some studies has reported drug allergy followed by cardiovascular diseases as the most common conditions [16,18].

In our study gastrointestinal problems were reported the most common medical condition (21.64%). This is in agreement with studies conducted by Khader YS et al. [10], and Gaphor SM et al. [15] as they recorded gastrointestinal problem as most common (11.9% and 14% respectively). This may be due to even the simplest gastritis was included as medical problem under this category, secondly, due to geographic location and irregular dietary habit of patient, more number of patient are prone to gastro-intestinal problems. This is also of as patient who has gastric problem is more prone to have erosion of teeth, hypersensitivity. Also medication especially NSAIDs in these patients should be prescribed with precautions.

In our study we found that hypertension (20.12%) was the second most common medical condition was reported. In 2000, the National Health Interview Survey reported that 20% of the population had hypertension [19]. Kellog et al. [20] has reported hypertension in 32% of dental school population at the University of Michigan's School of Dentistry. Al-Bayaty HF et al. [8] has reported hypertension in 12.6% among Dental Patients at the School of Dentistry, The University of the West Indies. In the study conducted by Aggarwal et al. [4] 15.2 percent of the sample reported a positive history for hypertension. (The most commonly reported diseases are summarized in *Table 4*) .The actual prevalence, however, is probably higher since some patients may have undiagnosed or intentionally unreported hypertension [21]. In Saudi Arabia, Saeed et al. [22] reported that 27% of all hypertensive in their study were not aware of their disease and more than 31% of known hypertensive was not well controlled. Since measuring an individual's blood pressure is the only method to diagnose hypertension, screening dental patients routinely for hypertension is necessary [23].

Arthritis was reported as third most common condition (15.31%), which is in agreement with the study conducted by Radfar L et al. [1]. On contrary, Al-Bayaty HF et al. [8] and Aggarwal A et al. [4] have reported a low prevalence of Arthritis in dental population. This is significant as it may affect the patient's ability to report to dentist for the treatment.

Diabetes was reported as forth most common condition (11%). This is in concordance with the study conducted by Aggarwal et al. [4]. India and other countries in Asia are experiencing rapid increases in diabetes and cardiovascular disease. The prevalence of type 2 diabetes in urban Indian adults increased from less than 3% in the 1970s to more than 12% in 2000. It is predicted that, by 2025, India will have more than 60 million diabetic patients [24]. In the 1998 National Health Survey, the prevalence of diabetes mellitus was highest among Indians (12.9 percent), followed by Malays (9.3 percent) and Chinese (8.1 percent). This may indicate a genetic predisposition among the Indians, in addition to effect of migration, since a high prevalence of diabetes mellitus was found among migrant Asian Indians

in many countries [25]. The higher frequency of diabetics among dental patients could be attributed to the increased prevalence of periodontal disease among these patients, which might be the cause for their dental visit. Periodontal disease is a common oral complication of diabetes. Furthermore, treatment of periodontal infection may improve glycemic control in diabetics [26]. Dental health professionals should be able to recognize signs and symptoms of diabetes and refer patients with suspected diabetes for medical diagnosis and management, provide safe and effective dental treatment for diabetics, and be alert to potential complications of dental treatment and diabetes.

Drug allergy was reported in 2.3% of the patient with medical conditions. Most common drug group to which patient were allergic was analgesics followed by antihistaminic and antibiotics. Although the number of patient with drug allergy was not much significant, still drug history is vital as allergic reaction may prove fatal. Drug allergies were reported by 6.5 percent of the patients in this study. Dhanuthai et al. [16] and Abuabara A et al. [18] reported that allergies and drug sensitivities were the most common medical problems reported by their patients. As in the study by Jainkittivong et al. [27] the most common drug allergy was penicillin followed by sulfa. The incidence of penicillin allergy has been reported to be from 1 to 10 percent. Allergy ranked as the most common medically compromised conditions encountered in dental patients in the studies done by Smeets et al. [12] and Saengsirinavin et al. [13]. Dentists should take a thorough patient history especially drug allergy before prescribing any medication.

No patient in group I reported with hypertension, diabetes, cardiovascular diseases, drug allergy, renal, malignancy, bleeding, pregnancy or HIV/ AIDS. In group IV, no patient reported with drug allergy, bleeding disorders, epilepsy, pregnancy or HIV/AIDs.

Our study has certain limitations. The majority of people in developing countries such as India do not undergo routine medical check-ups. As a consequence, patients with asymptomatic diseases often do not realize they are having these problems. Also, patients generally do not appreciate the amount of information the dentist needs to know or are reluctant to share medical information. Therefore, the prevalence of systemic diseases that we found in our study (51.52%) may be lower than the actual figures. The major drawback of the present study is based on self reporting of medical conditions by the patient, that it does not conduct the interview and physical examinations so patients with undiagnosed medically compromised conditions may go undetected. The other reason is that patients with infectious or sexually transmitted diseases such as AIDS may not give accurate medical histories for fear that they may be denied dental treatments.

Conclusion

The practice of medicine and dentistry has been changing and will continue to change in the future. Dentists are increasingly treating more medically complex patients who require complex services with more challenging dental treatment planning. The results of this study support the need to assess

every dental patient's health status and enter this information in the health record. Also, the current dental curriculum in India may require adjustments to include more medically oriented training. Medically complex patients need more in-depth evaluation, which indeed requires more knowledge of medicine. Patients' medical conditions demand a more detailed assessment and modification of dental management. Continuing education courses should emphasize these subjects as well. In dentistry, the curriculum may require modification toward a more medically oriented dental education. In order to protect the safety of a patient it is prudent for a dental practitioner to obtain a current and thorough medical history before proceeding with planned treatment. Even though the prevalence of medically compromised conditions in dental patients is not high, dentists should bear in mind that some of the patients may harbor medically compromised conditions which are contraindicated for certain dental procedures or medications or required special attention when treating these patients. Therefore a thorough history taking and careful clinical examinations are mandatory before commencing any dental treatment.

Acknowledgement

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