



Original Article

บทวิททยาการ

Chief complaints, dental health status and dental treatment needs in elderly patients

Aree Jainkittivong B.Sc. (Hons), D.D.S. (Hons), M.S.¹

Vilaiwan Aneksuk D.D.S., Grad.Dip. in Clin.Sc. (Periodontology)¹

Robert P. Langlais D.D.S., M.S., FACD, FICD, FRCD (C)²

¹ Department of Oral Medicine, Faculty of Dentistry, Chulalongkorn University

² Department of Dental Diagnostic Science, The University of Texas Health Science Center at San Antonio

Abstract

Objective The aims of this study were to investigate the principal oral complaints, dental health status and dental treatment needs in elderly patients.

Materials and methods The study sample consisted of 484 dental patients who were 60 years of age and older. Interviews were conducted to identify the oral complaints whereas the dental health status and dental treatment needs were assessed by oral examination.

Results There were 17 principal oral complaints identified; and the four leading problems were faulty prostheses (21.1%), pain or/and swelling (16.3%), tooth loss or inefficient chewing (16.1%), and broken teeth and restorations (11.6%). There were more edentate subjects in the 70 years and older group (21.3%) than the other two younger groups (14.6% and 6.4% respectively, $p = .001$). With reference to denture wearing status, there were 246 denture wearers, including 62.2% partial denture wearers and 37.8% complete denture wearers. Of the 416 dentate subjects, there were 85.3% subjects who had at least one carious lesion. The DMF scores were higher in the oldest group (21.1 ± 6.8) as compared to those of the two younger groups (19.2 ± 7.9 and 18.9 ± 6.8 respectively, $p = .038$). There were 30.5% subjects with gingivitis and 65.9% with periodontitis. The incidence of periodontitis increased with age ($p < .001$). Prosthetic treatment was the main requirement, applying to 84.5% of the group, followed by the periodontal treatment (80.8%), and restorative treatment (75.4%).

Conclusion The results of this study shows high incidence of dental diseases in our sample. Therefore the appropriate dental treatment is a high priority for this group of patients.

(CU Dent J. 2005;28:189-98)

Key words: chief complaint; dental health status; dental treatment needs; elderly

Introduction

It has been shown that older adults usually have poor oral health, visit the dentist infrequently, and rarely complain of oral problems. Petersen et al¹ reported only 43% older Lithuanians visited the dentist within the past year and the main reasons were related to acute symptoms. Mattin and Smith² also reported fewer than 15% of the older Asians attended the dentist on a regular basis; the remaining subjects reported it was not necessary to do so unless they were in pain or required new dentures. MacEntee and Scully³ stated oral health deteriorates with advancing age and the disorders progress further to the state of more serious neglect in later years. In older individuals, periodontal disease and caries become about equally responsible for tooth loss.⁴ The main risk factor for tooth loss in older adults was usually associated with a poor oral health status.⁵⁻⁷ Shimazaki et al⁷ showed that the number of teeth, number of decayed teeth, periodontal pocket depth, and plaque index were significant predictors for the number of teeth lost. Loesche et al⁸ stated medical health and oral health are linked. Recent studies have shown a correlation between dental or periodontal infections and cardiovascular or cerebrovascular disease. Pajukosky et al⁹ reported edentulousness correlated significantly with cardiovascular diseases and drugs taken daily.

Epidemiological studies have shown the numbers of elderly people around the world are increasing. In addition, the current data suggest that old adults continue to keep more of their teeth longer than previous generations,¹⁰⁻¹² and their dental needs are certain to increase. Previous studies indicated prosthodontic treatment, periodontal therapy, restorative procedures and pain relief were the major treatment categories needed by the elderly.¹³⁻¹⁶ As the number of old people increases, more time and effort by the dental profession should be directed to meet the demands and needs of the elderly. Thus baseline information regarding their

complaints and dental health status is necessary in order to plan for and to provide proper dental care for this group of patients.

The aims of this study were to investigate the principal oral complaints, dental health status and dental treatment needs in a group of Thai elderly dental patients.

Materials and methods

The study was conducted on a sample of 484 subjects attending the Oral Diagnosis Clinic at Chulalongkorn University Dental School for an oral examination and a dental treatment plan. The study sample consisted of subjects who were 60 years of age and older. Authors AJ and VA performed the interviews and oral examinations. The interviews were conducted to identify the subjects' principal oral complaints whereas their dental health status and treatment needs were assessed by a clinical examination. The dental status (number of decayed, missing, filled teeth, filled teeth with recurrent caries, retained roots), pulpal diseases, periodontal conditions, edentulousness, denture wearing status and dental treatment needs were recorded.

The data was analyzed using the Statistical Package for the Social Sciences (version 11.0). Frequency distributions were used to describe the data. Differences in variables in relation to age group were tested by the Pearson chi-square test and the analysis of variance. P values lower than .05 were considered statistically significant.

Results

The sample included 195 (40.3%) men and 289 (59.7%) women, who were divided into three age ranges: 60-64 years = 156 (32.2%), 65-69 years = 178 (36.8 %) and 70 years and older = 150 (31%). The average age for men was 67.8±5.7 years and for women 67.2±5.3 years.

Table 1 lists the principal oral complaints among the 484 elderly subjects and 17 principal oral complaints identified. The four leading oral complaints were faulty prostheses (21.1%), pain or/and swelling (16.3%), tooth loss or inefficient chewing (16.1%), and broken teeth and restorations (11.6%). Other less frequent complaints were mobile teeth (6.6%), soreness or ulcer (5.6%), caries or cavity (5.2%), sensitive teeth (4.5%), gum problems (4.8%), etc. There were no differences in the frequency distribution of the principal oral complaints among the three age groups ($p = .135$).

Table 2 shows frequency distribution of edentulousness in the study sample. There were 399 (82.4%)

partially dentate, 63 (13%) edentate and 17 (3.5%) fully dentate subjects. Five (1%) subjects had only retained roots remaining in the oral cavity. There were more edentulous subjects in the 70 years and older group (21.3%) than the other two younger groups (14.6% and 6.4% respectively, $p = .001$). Of the 399 partially edentulous subjects, there were 338 (69.8%) subjects who had teeth remaining in both dental arches, 40 (8.3%) were completely edentulous in the maxilla and 21 (4.3%) were completely edentulous in the mandible. With reference to age, the edentate subjects were older (69.6 ± 5.5 years) than the partially dentate subjects and the fully dentate subjects (67.1 ± 5.4 years and 65.5 ± 3.4 years respectively, $p = .001$).

Table 1 Frequency distribution of the principal oral complaints by age in 484 elderly subjects

Oral complaints	60-64 yrs	65-69 yrs	≥ 70 yrs	Total
	(n=156)	(n=178)	(n=150)	(n=484)
	n (%)	n (%)	n (%)	n (%)
Faulty prostheses	26 (16.7)	35 (19.7)	41 (27.3)	102 (21.1)
Pain and/or swelling	28 (17.9)	27 (15.2)	24 (16.0)	79 (16.3)
Tooth loss/inefficient chewing	29 (18.6)	24 (13.5)	25 (16.7)	78 (16.1)
Broken teeth/restorations	18 (11.5)	24 (13.5)	14 (9.3)	56 (11.6)
Mobile teeth	7 (4.5)	19 (10.7)	6 (4.0)	32 (6.6)
Soreness/ulcer	5 (3.2)	11 (6.2)	11 (7.3)	27 (5.6)
Caries/cavity	9 (5.8)	9 (5.1)	7 (4.7)	25 (5.2)
Sensitive teeth	9 (5.8)	6 (3.4)	7 (4.7)	22 (4.5)
Gum problems	8 (5.1)	10 (5.6)	5 (3.3)	23 (4.8)
Regular check up	5 (3.2)	3 (1.7)	2 (1.3)	10 (2.1)
TMJ disorders	5 (3.2)	3 (1.7)	0 (0.0)	8 (1.7)
Orofacial pain	1 (0.6)	3 (1.7)	5 (3.3)	9 (1.9)
Food impaction	2 (1.3)	2 (1.1)	0 (0.0)	4 (0.8)
Bad breath	3 (1.9)	0 (0.0)	1 (0.7)	4 (0.8)
Dental deposits	0 (0.0)	2 (1.1)	0 (0.0)	2 (0.4)
Epulis	1 (0.6)	0 (0.0)	1 (0.7)	2 (0.4)
Exostoses	0 (0.0)	0 (0.0)	1 (0.7)	1 (0.2)

Chi-square value = 40.897, $p = .135$

Table 2 Frequency distribution of the edentulousness by age in 484 elderly subjects

	60-64 yrs (n=156) n (%)	65-69 yrs (n=178) n (%)	≥ 70 yrs (n=150) n (%)	Total (n=484) n (%)
Completely edentulous	10 (6.4)	23 (12.9)	30 (20.0)	63 (13.0)
Subjects with only retained roots remained	0 (0.0)	3 (1.7)	2 (1.3)	5 (1.0)
<i>Edentulous (total)*</i>	<i>10 (6.4)</i>	<i>26 (14.6)</i>	<i>32 (21.3)</i>	<i>68 (14.0)</i>
Fully dentate	6 (3.8)	9 (5.1)	2 (1.3)	17 (3.5)
Teeth remained in both arches	126 (80.8)	119 (66.9)	93 (62.0)	338 (69.8)
Maxillary edentulous	6 (3.8)	18 (10.1)	16 (10.7)	40 (8.3)
Mandibular edentulous	8 (5.1)	6 (3.4)	7 (4.7)	21 (4.3)
<i>Dentate (total)</i>	<i>146 (93.5)</i>	<i>152 (85.5)</i>	<i>118 (78.7)</i>	<i>416 (85.9)</i>

Chi-square value = 14.175, $p = .001$

Table 3 Frequency distribution of denture wearing status in 246 denture wearers

Denture wearing status	n (%)
Partial dentures only	86 (34.9)
Partial dentures + crowns/bridge	67 (24.2)
<i>Partial denture wearing group</i>	<i>153 (62.2)</i>
Complete maxillary and mandibular dentures	53 (22.5)
Maxillary/mandibular denture with partial denture or with partial denture + crowns/bridges	24 (4.7)
Maxillary/mandibular denture	13 (5.2)
Maxillary/mandibular denture + crowns/bridges	3 (1.2)
<i>Complete denture wearing group</i>	<i>93 (37.8)</i>

With reference to denture wearing status (Table 3), there were 246 denture wearers, with 153 (62.2%) in the partial denture wearing group (PDW) and 93 (37.8%) in the complete denture wearing group (CDW). Within the PDW group, there were 86 (34.9%) subjects with partial dentures only and 67 (24.2) subjects had partial dentures in combination with crowns and/or bridges.

In the CDW group there were 53 (22.5%) subjects with both complete maxillary and mandibular dentures; 24 (4.7%) subjects with a maxillary or mandibular complete denture in combination with a partial denture only or with a partial denture together with crowns and/or bridges; 13 (5.2%) subjects with a maxillary or mandibular complete denture and 3 individuals

with a maxillary or mandibular complete denture in combination with crowns and/or bridges. Other subjects included 57 (11.8%) with crowns and/or bridges and 181 (37.4%) who were partially or fully edentulous but had no prostheses.

Figure 1 shows the caries frequency in 416 dentate subjects in relation to age. There were 355 (85.3%) subjects who had at least one carious lesion. However, there was no difference in the caries frequency among the subjects of the three age groups (31.5% in the 60-64 year group, 31% in the 65-69 year group and 22.8% in the 70 years and older group, $p = .107$).

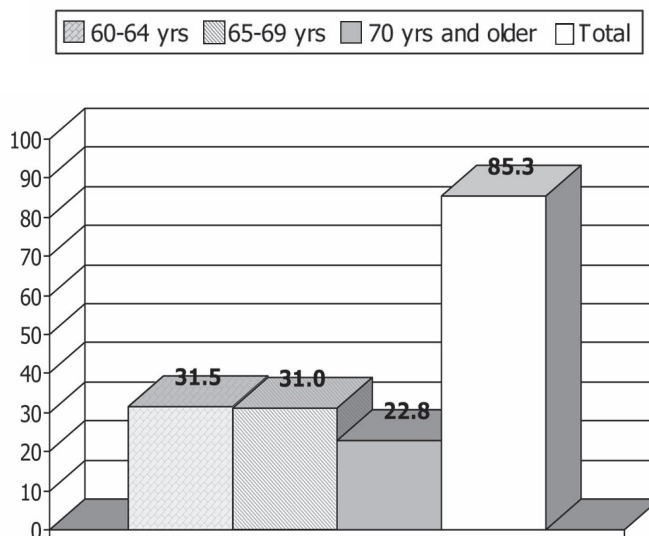


Fig. 1 Caries frequency in 416 dentate subjects in relation to age (Chi-square value = 4.473, $p = .107$)

Table 4 Mean number of remaining teeth, sound, decayed (D), missing (M), filled (F), DMF scores, filled teeth with recurrent caries by age in 416 dentate subjects

	60-64 yrs Mean (SD)	65-69 yrs Mean (SD)	≥ 70 yrs Mean (SD)	Total Mean (SD)	p-value
Remaining teeth*	18.5 (7.6)	17.0 (8.2)	15.2 (7.5)	17.0 (7.9)	.003
Sound teeth*	12.4 (6.9)	12.2 (8.0)	10.0 (6.7)	11.6 (7.3)	.016
Decayed teeth	3.0 (2.6)	2.8 (3.1)	3.1 (3.1)	3.0 (2.9)	.667
Missing teeth*	12.8 (7.3)	14.4 (8.1)	15.9 (7.5)	14.3 (7.7)	.006
Filled teeth*	3.1 (3.3)	2.0 (2.8)	2.1 (3.3)	2.4 (3.1)	.003
DMF scores*	18.9 (6.8)	19.2 (7.9)	21.1 (6.8)	19.6 (7.2)	.038
Filled teeth with recurrent caries*	11 (1.4)	0.6 (1.2)	0.6 (1.2)	0.8 (1.3)	.001

* ANOVA, significant differences $p < .05$

Table 4 shows the mean number of remaining teeth, sound teeth, decayed, missing and filled teeth, decayed missing and filled (DMF) scores and filled teeth with recurrent caries by age. Of the 416 dentate subjects, the mean number of teeth present was 17.0 ± 7.9 and the mean number of sound teeth was 11.6 ± 7.3 . The mean number of DMF scores was 19.6 ± 7.2 , and missing teeth was the major component. Subjects in the

youngest age group had a higher number of teeth present (18.5 ± 7.6) than those in the two older groups (17.0 ± 8.2 and 15.2 ± 7.5 respectively, $p = .003$). The number of sound teeth was highest in the youngest group (12.4 ± 6.9), followed by the 65-69 year group (12.2 ± 8.0) and the 70 years and older group (10.0 ± 6.7) ($p = .016$). There was also no difference in number of decayed teeth among the three age groups ($p = .667$). The mean number of

decayed teeth was 3.0 ± 2.6 in the 60-64 year group, 2.8 ± 3.1 in the 65-69 year group and 3.1 ± 3.1 in the 70 years and older group. Subjects in the 60-64 year group also had more filled teeth (3.1 ± 3.3) than those in the 65-69 year (2.0 ± 2.8) and 70 years and older groups (2.1 ± 3.3) ($p = .003$). Subjects in the oldest group had the highest number of missing teeth (15.9 ± 7.5), followed by the 65-69 year group (14.4 ± 8.1) and the 60-64 year group (12.8 ± 7.3) ($p = .006$). With reference to decayed missing and filled (DMF) scores, DMF scores were higher in the oldest groups (21.1 ± 6.8) as compared to those of the two younger groups (19.2 ± 7.9 and 18.9 ± 6.8 respectively, $p = .038$). Subjects in the 60-64 year group showed a higher number of filled teeth with recurrent caries (1.1 ± 1.4) than those in the 65-69 year and 70 years and older groups (0.6 ± 1.2 and 0.6 ± 1.2 respectively, $p = .001$).

Of the 484 subjects, one hundred and sixty-eight subjects (34.7%) had pulpal diseases. One hundred and thirty-one subjects (27.1%) had at least one root retained in the maxilla and/or mandible (range = 1-11).

Figure 2 shows the frequency distribution of the subjects who had a functional dentition of 20 or more teeth in relation to age. Of the 178 (36.8%) subjects who had 20 or more teeth, 16.1% were in the 60-64 year group, 13.6% were in the 65-69 year group, and 7% were in the 70 years and older group ($p < .001$).

Figure 3 shows the incidence of periodontal disease in 416 dentate subjects in relation to age. Only 15 (3.6%) subjects were free from periodontal disease. Of the remainder, 127 (30.5%) subjects had gingivitis and 274 (65.9%) had periodontitis. There were 61 (14.7%) subjects in the 60-64 year group, 45 (10.8%) in the 65-69 year group and 21 (5%) in the 70 years and older

group with gingivitis. There were 83 (20%) subjects in the 60-64 year group, 102 (24.5%) in the 65-69 year group, and 89 (21.4%) in the 70 years and older group with periodontitis. The incidence of gingivitis decreased with age whereas the incidence of periodontitis increased with age ($p < .001$).

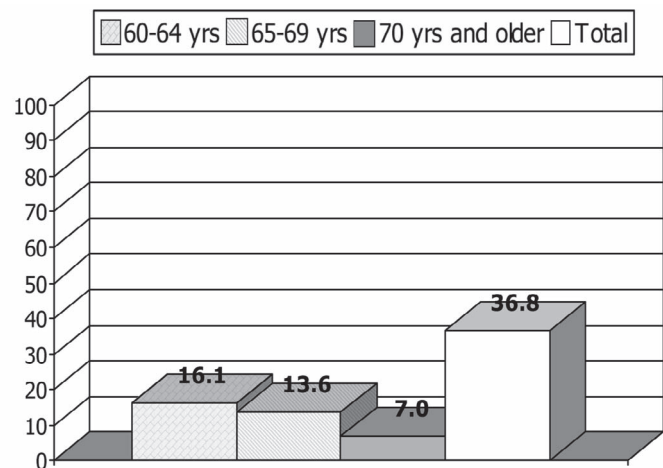


Fig. 2 Frequency distribution of subjects who had a functional dentition of 20 or more teeth in relation to age (Chi-square value = 24.582, $p < .001$)

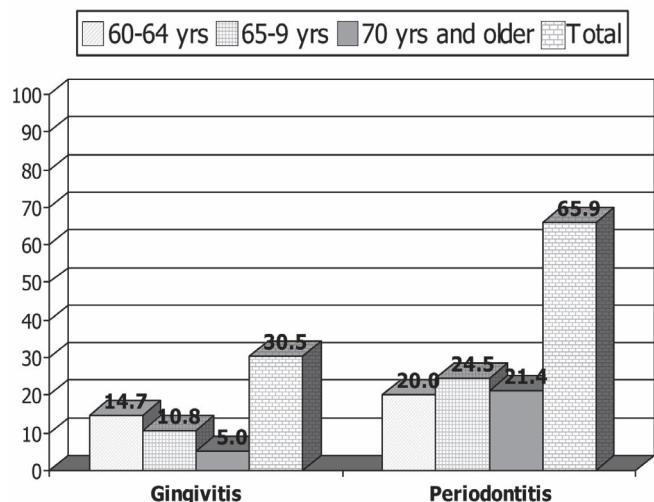


Fig. 3 Incidence of periodontal disease in 416 dentate subjects in relation to age (Chi-square value = 21.000, $p < .001$)

Table 5 shows the frequency distribution of the dental treatment needs in our study sample. Prosthetic treatment was the main requirement, applying to 84.5% of the group, followed by periodontal treatment (80.8%), and restorative treatment (75.4%). Periodontal and restorative treatments were needed more among subjects in the aged 60-69 years than those who were

70 years and older ($p = .012$ and $p < .001$ respectively). In contrast, treatment of conditions related oral medicine was needed more in the two older groups than the youngest group ($p < .001$). The need for prosthodontic treatment, surgical treatment, endodontic treatment and temporomandibular dysfunction management were not different among the three age groups.

Table 5 Frequency distribution of dental treatment needs in 484 subjects in relation to age

	60-64 yrs (n=156) n (%)	65-69 yrs (n=178) n (%)	≥ 70 yrs (n=150) n (%)	Total (n=484) n (%)	p-value
Prosthetic treatment	124 (25.6)	151 (31.2)	134 (27.7)	409 (84.5)	.058
Periodontal treatment*	135 (27.9)	146 (30.2)	110 (22.7)	391 (80.8)	.012
Restorative treatment*	134 (27.7)	133 (27.5)	98 (20.2)	365 (75.4)	< .001
Surgical treatment	65 (13.4)	72 (14.9)	62 (12.8)	199 (41.1)	.973
Endodontic treatment	32 (6.6)	25 (5.2)	17 (3.5)	74 (15.3)	.070
Oral Medicine*	4 (0.8)	29 (6.0)	26 (5.4)	59 (12.2)	< .001
Treatment of TMD	3 (0.6)	3 (0.6)	0 (0.0)	6 (1.2)	.251

* Chi-square test, significant differences $p < .05$

Discussion

The most prevalent principal oral complaints in our sample were related to denture wearing and pain. There were only 2.1% subjects who visited the dental school for a regular check up. These findings correspond with the report by Mattin and Smith² stated only a small number of patients visited the dentist on regular basis and most patients visited the dentist when they were in pain or required dentures.

The percentage of carious teeth in the present study was 85.3%. This finding is in agreement with other studies in that caries is one of the major problems in the elderly.^{17,18} The highest incidence of caries was found in the youngest group. This may be because this group retained more natural teeth than the two older groups.

However, when tested statistically, the incidence of caries was not different among the three age groups. This was confirmed by the lack of difference in caries frequency and number of carious teeth among the three age groups.

The mean value of sound teeth in our dentate subjects (11.6) is in the same range as an Australian study (12.0),¹⁷ but lower than those found in Swedish (13.9)¹⁹ and Bangladeshi studies (22.4).⁴ Moreover, the present sample showed a greater number of DMF scores (19.6) than the number reported in the Bangladeshi study (3.8)⁴ but lower than those in the Australian (24.7)¹⁷ and the Canadian (26.6) studies.¹⁸ The results indicate a high incidence of dental caries and tooth loss in our study sample.

Our results show a lower percentage of edentulousness (14%) as compared to other studies reporting 25% to 48.8%^{14,20,21} possibly because our subjects were younger. Our findings agree with those of other investigations in that edentulousness increases with age.²¹⁻²³ Although the number of dentate subjects in our study was high, most of them were partially dentate.

In this sample, only 20.6% subjects aged 65 years and older were able to meet the minimum standard of 20 or more teeth. Therefore, the oral health goal for the year 2000 (50%) as suggested by the World Health Organization²⁴ was not met by our sample. In this study, 27.1% subjects had at least one retained root. This is lower than the 48% as reported by Altieri et al.²⁵

Our subjects showed a high frequency of periodontal disease and the incidence of periodontitis increases with age. This corresponds with other reports indicating age is a factor in periodontitis.

Prosthetic treatment was the main requirement in our population. This finding corresponds with other investigations.^{16,26,27} Periodontal treatment was required more often in the two older groups than in the youngest group. This is further evidence supporting age as a factor in the development of periodontitis. The need for restorative treatment was lower in the group of individuals who were 70 years and older when compared to those in the age range of 60-69 years. This is because the oldest group retained a lower number of natural teeth than the two younger groups. Fewer elderly patients in our study were affected by temporomandibular joint dysfunction. This finding is in agreement with other studies.^{20,28} Miyazaki et al²² reported 19% of their subjects had unusual symptoms in their temporomandibular joint whereas Maupome et al²⁰ reported 9.6% of their subjects had jaw dysfunction.

Conclusion

The results of this study indicate high incidence of dental diseases in our sample. Therefore, appropriate dental treatment is a high priority for this group of patients.

Acknowledgement

The authors would like to thank Vanida Thongtha and Mayurate Prasomthong for their help in clinical assistance and data collection.

References

1. Petersen PE, Aleksejuniene J, Christensen LB, Eriksen HM, Kalo I. Oral health behavior and attitudes of adults in Lithuania. *Acta Odontol Scand.* 2000;58:243-8.
2. Mattin D, Smith JM. The oral health status, dental needs and factors affecting utilization of dental services in Asians aged 55 years and over, resident in Southampton. *Br Dent J.* 1991;170:369-72.
3. MacEntee MI, Scully C. Oral disorders and treatment implications in people over 75 years. *Community Dent Oral Epidemiol.* 1988;16:271-3.
4. Pearson N, Croucher R, Marcenes W, O'Farrell M. Dental health and treatment needs among a sample of Bangladeshi medical users aged 40 years and over living in Tower Hamlets, UK. *Int Dent J.* 2001; 51:23-9.
5. Burt BA, Ismail AI, Morrison EC, Beltran ED. Risk factors for tooth loss over a 28-year period. *J Dent Res.* 1990;69:1126-30.
6. Locker D, Ford J, Leake JL. Incidence of and risk factors for tooth loss in a population of older Canadians. *J Dent Res.* 1996;75:783-9.
7. Shimazaki Y, Soh I, Koga T, Miyazaki H, Takehara T. Risk factors for tooth loss in the institutionalized elderly; a six-year cohort study. *Community Dent Health.* 2003;20:123-7.

8. Loesche WJ, Abrams J, Terpenning MS, Bretz WA, Dominguez BL, Grossman NS, et al. Dental findings in geriatric populations with diverse medical backgrounds. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 1995;80:43-54.
9. Pajukoski H, Meurman JH, Snellman-Grohn S, Sulkava R. Oral health in hospitalized and nonhospitalized community-dwelling elderly patients. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 1999;88:437-43.
10. Ainamo A, Osterberg T. Changing demographic and oral disease patterns and treatment needs in the Scandinavian populations of old people. *Int Dent J.* 1992;42:311-22.
11. Ahlqwist M, Bengtsson C, Hakeberg M, Hagglin C. Dental status of women in a 24-year longitudinal and cross-sectional study. Results from a population study of Women in Goteborg. *Acta Odontol Scand.* 1999; 57:162-7.
12. Warren JJ, Cowen HJ, Watkins CM, Hand JS. Dental caries prevalence and dental care utilization among the very old. *J Am Dent Assoc.* 2000;131:1571-9.
13. Brauer L, Bessermann M, Frijs-Madsen B, Brauer E. Oral health status and needs for dental treatment in geriatric patients in a Danish district hospital. *Community Dent Oral Epidemiol.* 1986;14:132-5.
14. Stuck AE, Chappuis C, Flury H, Lang NP. Dental treatment needs in an elderly population referred to a geriatric hospital in Switzerland. *Community Dent Oral Epidemiol.* 1989;17:267-72.
15. Cautley AJ, Rodda JC, Treasure ET, Spears GF. The oral health and attitudes to dental treatment of a dentate elderly population in Mosgiel, Dunedin. *N Z Dent J.* 1992;88:138-43.
16. Galan D, Brex M, Heath MR. Oral health status of a population of community-dwelling older Canadians. *Gerodontology.* 1995;12:41-8.
17. Stubbs C, Riordan PJ. Dental screening of older adults living in residential aged care facilities in Perth. *Aust Dent J.* 2002;47:321-6.
18. Wyatt CC. Elderly Canadians residing in long-term care hospitals: Part I. Medical and dental status. *J Can Dent Assoc.* 2002;68:353-8.
19. Thorstensson H, Johansson B. Oral health in a population-based sample of the oldest-old: Findings in twins 80 years and older in Sweden. *Swed Dent J.* 2003;27: 49-57.
20. Maupome G, Wyatt CCL, Williams PM, Aickin M, Gullion CM. Oral disorders in institution-dwelling elderly adults: a graphic representation. *Spec Care Dentist.* 2002;22:194-200.
21. Adams C, Slack-Smith LM, Larson A, O'Grady MJ. Edentulism and associated factors in people 60 years and over from urban, rural and remote Western Australia. *Aust Dent J.* 2003;48:10-4.
22. Miyazaki H, Shirahama R, Ohtani I, Shimada N, Takehara T. Oral health conditions and denture treatment needs in institutionalized elderly people in Japan. *Community Dent Oral Epidemiol.* 1992;20:297-301.
23. Steele JG, Walls AW, Ayatollahi SM, Murray JJ. Major clinical findings from a dental survey of elderly people in three different English communities. *Br Dent J.* 1996;180:17-23.
24. WHO. A review of current recommendations for the organization and administration of community oral health services in Northern and Western Europe. Copenhagen: WHO regional office, 1982.
25. Altier JV, Vogler JC, Goldblatt R, Katz RV. The dental status of dentate institutionalized older adults: consideration of retained roots. *Spec Care Dentist.* 1993;13: 66-70.
26. Grabowski M, Bertram U. Oral health status and need of dental treatment in the elderly Danish population. *Community Dent Oral Epidemiol.* 1975;3:108-14.
27. Tobias B. Dental aspects of an elderly population. *Age Ageing.* 1988;17:103-10.
28. MacEntee MI, Wyatt CC. An index of clinical oral disorder in elders (CODE). *Gerodontology.* 1999;16: 85-96.

อาการสำคัญ สภาวะทันตสุขภาพ ความต้องการ การรักษาทางทันตกรรมในผู้ป่วยสูงอายุ

อารีย์ เจนกิตติวงศ์ วท.บ. (เกียรตินิยม), ท.บ. (เกียรตินิยม), M.S.¹

วิไลวรรณ อเนกสุข ท.บ., ป.บัณฑิตวิทยาศาสตร์การแพทย์คลินิก (ปริทันตวิทยา)¹

Robert P. Langlais D.D.S., M.S., FACD, FICD, FRCD (C)²

¹ ภาควิชาเวชศาสตร์ช่องปาก คณะทันตแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

² Department of Dental Diagnostic Science, The University of Texas Health Science Center at San Antonio

บทคัดย่อ

วัตถุประสงค์ เพื่อสำรวจอาการสำคัญ สภาวะทันตสุขภาพ และความต้องการการรักษาทางทันตกรรมของผู้ป่วยสูงอายุ

วัสดุและวิธีการ การศึกษาทำในผู้ที่มีอายุ 60 ปีขึ้นไปกลุ่มหนึ่งที่มาขอรับการรักษาทางทันตกรรม จำนวน 484 ราย โดยอาการสำคัญได้จากการสัมภาษณ์ สภาวะทันตสุขภาพ และความต้องการการรักษาทางทันตกรรมได้จากการตรวจช่องปาก

ผลการศึกษา พบอาการสำคัญที่ทำให้ผู้สูงอายุมาพบทันตแพทย์ 17 ชนิด โดยอาการสำคัญ 4 อันดับแรก ที่พบบ่อย ได้แก่ ฟันปลอมไม่ดีร้อยละ 21.1 อาการปวดหรือและบวมร้อยละ 16.5 การสูญเสียฟันหรือประสิทธิภาพในการบดเคี้ยวลดลงร้อยละ 16.3 และฟันหรือวัสดุบูรณะแตกหักร้อยละ 11.6 ผู้สูงอายุในกลุ่มอายุ 70 ปีขึ้นไป มีการสูญเสียฟันทั้งปากร้อยละ 21.3 ซึ่งมากกว่าอีกสองกลุ่มอายุ (ร้อยละ 14.6 และร้อยละ 6.4 ตามลำดับ $p = .001$) มีผู้สูงอายุ 246 รายใส่ฟันปลอม โดยแบ่งเป็นการใส่ฟันปลอมบางส่วนร้อยละ 67.2 และใส่ฟันปลอมทั้งปากร้อยละ 37.8 ในจำนวนผู้สูงอายุ 416 รายที่ยังมีฟัน พบว่า ร้อยละ 85.3 มีฟันผุอย่างน้อยหนึ่งซี่ สำหรับค่าเฉลี่ยฟันผุ ถอน อุด ในกลุ่มอายุ 70 ปีขึ้นไป เท่ากับ 21.1 ± 6.8 ซึ่งสูงกว่าอีกสองกลุ่มอายุ (19.2 ± 7.9 และ 18.9 ± 6.8 ตามลำดับ $p = .038$) ผู้สูงอายุร้อยละ 30.5 มีโรคเหงือกอักเสบ และร้อยละ 65.9 มีโรคปริทันต์อักเสบ และอุบัติการณ์ของการเกิดโรคปริทันต์อักเสบ เพิ่มขึ้นตามอายุที่สูงขึ้น ($p < .001$) ความต้องการการรักษาทางทันตกรรม ที่พบมากที่สุด คือ การใส่ฟันปลอมร้อยละ 84.5 รองลงมา คือ การรักษาโรคปริทันต์ร้อยละ 80.8 และการอุดฟันร้อยละ 75.4

สรุป ผลการศึกษานี้แสดงให้เห็นว่าโรคทางทันตกรรมมีอุบัติการณ์สูงในผู้สูงอายุ ดังนั้น การให้การักษาทางทันตกรรมที่เหมาะสมในผู้สูงอายุจึงมีความสำคัญเป็นลำดับต้นๆ

(ว ทันต จุฬฯ 2548;28:189-98)

คำสำคัญ: ความต้องการการรักษาทางทันตกรรม; ผู้สูงอายุ; สภาวะทันตสุขภาพ; อาการสำคัญ