



ISSN: 2277- 7695

TPI 2017; 6(2): 183-185

© 2017 TPI

www.thepharmajournal.com

Received: 16-12-2016

Accepted: 11-01-2017

M T Sloboda

Danylo Halytsky National Medical University, faculty of postgraduate education, chair of therapeutic stomatology
Pekarska str. 69, Lviv 79008, Ukraine

Assessment of the quality of life through the SF-36 questionnaire in young patients with periodontal diseases and deforming dorsopathies

M T Sloboda

Abstract

This study assessed the impact of periodontal health status and deforming dorsopathies (separately and together) on quality of life. 321 subjects (53,5%) completed the SF-36 questionnaire. The sample included 104 patients with periodontal diseases and deforming dorsopathies, II group - 94 patients with deforming dorsopathies without periodontal diseases, III group - 123 patients with periodontal diseases without deforming dorsopathies. Deforming dorsopathies create general unfavorable background in physical possibilities and social contacts and reduced life activity mainly emotional and mental status, are more pronounced when combined with periodontal diseases. Patients with deforming dorsopathies felt serious discomfort in everyday activity: diseases had negative affect to the quality of life of patients both in terms of physical and psychological functioning. The study concluded that despite of the young age, all the patients had low average values on all scales, indicating a negative influence both deforming dorsopathies and periodontal disease (separately and together) on quality of life.

Keywords: periodontal diseases, deforming dorthopathy, quality of life, young people

Introduction

Periodontal diseases are one of the most common oral diseases. According to different authors the prevalence of periodontal diseases in the world up to 90% [2, 19]. Another important note is high prevalence of periodontal diseases among young people [3, 4, 8]. Although there have been genuine advances in our understanding of the pathogenesis, prevention and treatment of periodontal disease in recent years, these advances have not been accompanied by a significant reduction in the prevalence and severity of periodontal disease [1, 7]. The aetiology and pathogenesis of periodontal disease involves a complicated interplay between the plaque aetiological agents and various genetic and environmental risk factors, and its occurrence is often unpredictable [18]. It therefore remains a major concurrent oral health problem. In scientific studies have shown the relationship of periodontal diseases and lesions of the musculoskeletal system, due to the common ontogenetic development of bone and maxillofacial tissues [5, 6, 10, 11]. During the study of periodontal diseases in young people was found a significant number of persons with musculoskeletal disorders.

The concept of quality of life researching is an important part of modern medicine. Quality of life reflects the overall well-being and level of satisfaction with the sides of human life, in which health affects.

Deforming dorsopathies - one of the most common diseases of modern man. According to statistics, four in five people suffer from back pain, which often reduces the quality of life and even lead to disability [9].

The negative effects of periodontal disease on quality of life were reported in a great number of studies. Periodontitis can affect not only the ability to eat, speak, and socialize but also interpersonal relationships and daily activities [12-15]. This is an area which deserves further study.

Therefore, the objective of this study was to evaluate the quality of life of young patients with spine disease and periodontal diseases (separately and together), with the use of the SF-36 questionnaire (functional capacity, physical aspects, pain, general health status, vitality, social aspects, emotional aspects and mental health) [15, 17] to determine the impact on quality of life associated with periodontal health or disease in general.

Materials and methods.

This study was designed as a cross-sectional survey and conducted at a Lviv national medical

Correspondence

M T Sloboda

Danylo Halytsky National Medical University, faculty of postgraduate education, chair of therapeutic stomatology
Pekarska str. 69, Lviv 79008, Ukraine

University, Ukraine. A clinical examination of 600 young persons, ranging in age from 19 to 24 years old, was performed.

All participants underwent a clinical examination by a calibrated neurologist.

The survey started with the collection of complaints, history taking. Condition of oral cavity was evaluated using clinical indicators: gingival inflammation, clinical attachment loss (CAL), periodontal probing depth (PPD) and the radiographic pattern and extent of alveolar bone loss.

To assess quality of life, we used the Short-Form Health Survey (SF-36).

Statistical calculations were carried out using Statistica 10 (Statsoft, USA).

Results

Data analysis of neurological examination of 600 young people reveal 198 patients with various types of deforming dorsopathies (33%).

Periodontal examination of 198 young people with deforming dorsopathies revealed periodontal diseases in 104 individuals (53,53 ± 3,56%), intact periodontal - in 94 individuals (47,47 ± 3,56%). At the same time the survey of 402 young people without deforming dorsopathies revealed periodontal diseases in 123 (30,6 ± 2,3%), intact periodontal tissues - in 279 (69,4 ± 2,3%). Thus, the first phase of the study found significantly higher prevalence of periodontal diseases in young persons with deforming dorsopathies compared with those without (p <0.001).

For further study distribution of surveyed young people was so: I group consisted of 104 patients with periodontal diseases and deforming dorsopaties, II group - 94 patients with deforming dorsopathies without periodontal diseases, III group - 123 patients with periodontal diseases without deforming dorsopathies.

Patient's characteristics are summarized in Table 1. No significant differences were observed between the groups (p>0.05) instead of presence of systemic disease.

Table 1: Patient's characteristics

	I group n =104		II group n = 94		III group n= 123	
Sex						
male	68	65,4%	51	54,3%	72	58,5%
female	36	34,6%	43	45,7%	51	41,5%
Frequency of brushing/day						
1	16	15,4%	14	14,9%	38	30,9%
2	86	82,7%	78	83%	82	66,7%
> 2	2	1,9%	2	2,1%	3	2,4%
< 1	0				0	
Smoking						
Yes	68	65,4%	53	56,4%	81	65,9%
No	36	34,6%	41	43,6%	42	34,1%
Frequency of dental visits						
regular	13	12,5%	9	9,6%	15	12,2%
irregular	29	27,9%	27	28,7%	33	26,8%
for pain	62	59,6%	58	61,7%	75	61%

The results concerning the impact of periodontal disease and deforming dorsopathies (separately and together) on quality

of life are presented in Table 2.

Table 2: SF 36 mean scores

SF-36 domain	(n =)			P1	P2	P3
	I group n =104	II group n = 94	III group n= 123			
Physical functioning (PF)	24,8 ±0,26	25,11 ±0,27	29,49 ±0,05	>0,5	<0,001	<0,001
Role-physical (RP)	5,77 ±0,1	5,91 ±0,1	7,49 ±0,05	>0,5	<0,001	<0,001
Bodily pain (BP)	5,15 ±0,16	5,05±0,17	2	>0,5	<0,001	<0,001
General health (GH)	12,53 ±0,4	13,13 ±0,4	14,08 ±0,33	>0,5	<0,01	>0,5
Vitality (VT)	13,8 ±0,07	13,83 ±0,07	13,2 ±0,11	>0,5	<0,001	<0,001
Social function (SF)	6,62 ±0,12	6,59 ±0,13	4,5 ±0,05	>0,5	<0,001	<0,001
Role- emotional (RE)	4,91 ±0,09	4,95 ±0,15	4,86 ±0,09	>0,5	>0,5	>0,5
Mental health (MA)	14,3 ±0,49	14,64 ±0,52	17,16 ±0,46	>0,5	<0,001	<0,001

Note: p1 – statistically significant difference between 1st and 2d groups, p2 –between 1st and 3d groups, p3 – between 2d and 3d groups.

Discussion

As seen from the data in the Table 2, results of the study of physical and psychological components of health in three groups of patients differed in many componets of questionnaire. In spite of the young age, patients had low average values on all scales, what indicate a negative influence of deforming dorsopathies and periodontal diseases on quality of life of surveyed patients. Interesting that almost equal rates in patients with deforming dorsopathies with and

without periodontal diseases significantly worse outcome as for periodontal patients without somatic pathologies.

Testing showed low levels of physical health component. Comparison of physical and role functioning revealed a probable decrease in physical activity and limitation of everyday activity in patients with periodontal diseases on the background of deforming dorsopathies as for this ones without somatic pathology (in accordance 15.9% and 23%, with p<0,001). Established similar statistically significant

deterioration of indications in patients with deforming dorsopathies without periodontal diseases compared to periodontal patients without somatic pathology (in accordance 14.9% and 21.1%, with $p < 0,001$).

Extremely strong was influence of the intensity of pain, associated with somatic disease - deforming dorsopathy. Patients in both groups with deforming dorsopathies experienced in 2,5 times more intense pain than with periodontal diseases without lesions of the spine ($p_2, p_3 < 0,001$).

However, all groups of surveyed young people observed almost the same assessment of their health, more optimistic in patients with periodontal diseases without somatic pathology. Interrogation of patients showed a significant decrease in mental resources to overcome problems with disease. While analyzing indicators of mental health component was found prevalence of subjective psychological component, which contributed to the reduction of life activity (scale VT) and was deepening by psychosocial problem (scale SF), which has shaped not favorable emotional state (scale RE). The highest rate was psychological health ($17,16 \pm 0,46$) in periodontal patients without somatic disease. Significantly lower rates in patients with deforming dorsopathies with and without periodontal diseases showed decreasing in mood and psychological distress.

Conclusion

So assessment of the quality of life through the SF-36 questionnaire allows to get a complete view of the health of patients, especially in the presence of somatic diseases.

Deforming dorsopathies create general unfavorable background in physical possibilities and social contacts and reduced life activity mainly emotional and mental status, are more pronounced when combined with periodontal diseases.

Patients with deforming dorsopathies felt serious discomfort in everyday activity: diseases had negative affect to the quality of life of patients both in terms of physical and psychological functioning.

References

- Albandar JM, Brunelle JA, Kingman A. Destructive periodontal disease in adults 30 years of age and older in the United States, 1988-1994. *J Periodontol.* 1999; 70:13-29.
- Albandar JM, Rams TE. *Periodontol 2000 Global epidemiology of periodontal diseases* 29. Copenhagen, Denmark: Munksgaard Blackwells, 2002.
- Albandar JM, Tinoco EM. Global epidemiology of periodontal diseases in children and young persons. *Periodontol 2000*, 2002; 29:153-176.
- Alranyes S. Periodontal disease in children / S. Alranyes, T. S. Hart // *Dis. Mon.* – 2011; 57(4):184-191.
- Armijo Olivo S, Magee DJ, Parfitt M, Major P, Thie NM. The association between the cervical spine, the stomatognathic system, and craniofacial pain: a critical review. *J Orofac Pain.* 2006; 20:271-87.
- Ben-Bassat Y, Yitschaky M, Kaplan L, Brind I. Occlusal patterns in patients with idiopathic scoliosis. *Am J Orthod Dentofacial Orthop.* 2006; 130:629-33.
- Downer MC. The changing pattern of dental disease over 50 years. *Br Dent J.* 1998; 185:36-41.
- Eres G. Periodontal treatment needs and prevalence of localized aggressive periodontitis in a young Turkish population / G. Eres, A. Saribay, M. Akkaya // *J. Periodontol.* 2009; 80(6):940-944.
- Häkkinen A, Salo P, Tarvainen U, Wiren K, Ylinen J. Effect of manual therapy and stretching on neck muscle strength and mobility in chronic neck pain. *J Rehabil Med.* 2007; 39:575-9.
- Hellsing E, McWilliam J, Reigo T, Spangfort E. The relationship between craniofacial morphology, head posture and spinal curvature in 8, 11 and 15 years old children. *Eur J Orthod.* 1987; 9:254-64.
- Huggare J. Association between morphology of the first cervical vertebra, head posture, and craniofacial structures, *European Journal of Orthodontics.* 1991; 13(6):435-440.
- Locker D. Measuring oral health: a conceptual framework.
- Lopes MWF, Gusmão ES, Alves RV, Cimões R. The impact of chronic periodontitis on quality of life in Brazilian subjects. *Acta Stomatologica Croatica*, 2009; 43:89-98.
- López R, Baelum V. Oral health impact of periodontal diseases in adolescents. *Journal of Dental Research*, 2007; 86:1105-1109.
- Naito T, Naito M, Miyaki K, Sugiyama S, Fujiki S, Habu S *et al.* Oral health on the quality of life of dental patients: A cross-sectional survey among dental patients attending private practices in Japan. *Journal Fukuoka Dental College*, 2010; 36(4):139-147.
- Needleman I, McGrath C, Floyd P, Biddle A. Impact of oral health on the life quality of periodontal patients. *Journal of Clinical Periodontology.* 2004; 31:454-457.
- Ng SK, Leung WK. Oral health-related quality of life and periodontal status. *Community Dentistry and Oral Epidemiology*, 2006; 34(2):114-122
- Page RC, Kornman KS. The pathogenesis of human periodontitis: an introduction. *Periodontol.* 2000; 1997; 14:9-11.
- Pihlstrom BL, Michalowicz BS, Johnson NW. Periodontal diseases. *Lancet* 2005; 366:1809-1820.