

## Geriatric Endodontics Gaining More Important Role.....

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Geriatric Endodontics (geroendodontics) is a branch of endodontics and gerodontology to provide elder people good quality endodontic therapy to ensure them a better quality of oral health and overall to improve their life quality by saving teeth through endodontic treatment (root canal therapy) and lessen their edentolousness. Geriatric Dentistry (gerodontology) is the dental field that studies dental problems, their diagnosis and solutions in the old. Gerodontology is an interdisciplinary issue in dentistry and has social, demographic, even economical and political aspects related the health and social policies of the governments. Dentistry is a key member of health deliver team. The field of "Geriatrics" is becoming more important in medicine as a multidiscipline in few recent decades and is becoming a rising star. As a key member of health deliver team, also in the field of dentistry geriatric dentistry and geriatric endodontics gaining more importance because of increasing number of the elder population over 65 years and also over 80 years are becoming a new group and target as a second category in geriatrics and geroendodontology. Older populations themselves are ageing. A notable aspect of the global ageing process is the progressive demographic ageing of the older population itself. For most nations, regardless of their geographic location or developmental stage, the 80 or over age group is growing faster than any younger segment of the older population. Six countries contain more than half of the world's oldest-old population. Currently, six countries account for 54 per cent of the total number aged 80 years or over. They are China, with the largest number (12 million), United States of America (9 million), India (6 million), Japan (5 million), Germany (3 million) and Russian Federation (3 million). In 2050, six countries will have more than 10 million people aged 80 years or over: China (99 million), India (48 million), United Sates of America (30 million), Japan (17 million), Brazil (10 million) and Indonesia (10 million). Together they will account for 57 per cent of all those 80 or over in the world. Numbers of persons aged 80 or over are increasing substantially. The proportion of persons over 80 is significantly higher in the more developed regions.

Most people above 80 years now live in the more developed regions; soon the majority will live in the less developed regions. By 2050, the number of centenarians is expected to increase eighteen times. Women make up a significant majority of the older population; the female share increases with age.

By April 2014 the World population is 7,175 billion, yearly growth 1,1%, and daily increase is 215.000. According to related data it is 516 million and 65+ people by 2009 (7.19% of total population) and will be triplicated in 2050 (1.53 billion). One birth in every 8 seconds and 1 dead in every 12 seconds. By 2025 world population will be 8 billion and by 2050 world population will be 9 billion and expected 1.5 billion over 65 which is 16% of world population, in 1950 it was 5%. Average life expectancy in 1955 at birth was 48 in the world. In 1995 the expectancy was 65, in 2025 will be reached 75. The world population rapidly aging between 2000-2050. Now in mid-2010, 523 million 65+ and 642 million between 0-4 yrs. In 2015, 714 million 65+ and 650 million between 0-4 years. Increasing number of centenarians (by 2050 the number of centenarians is expected to 18 times...by 2012: 316.600 (UN). Why is the geriatric endodontics gaining more significant role? Here some demographic data on aging population of the world (source: U.N.).

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- 1. 1900, 10-17 million people over 65 years old on our planet (less than 1% of the world population of that time).
- 2. 1992, 362 million over 65 yrs. and they are 6.2% of the world population.
- 3. 2030, (estimated) 2-2.5 billion people over 65 yrs. and they will make 20% of the world population.
- 4. 2035, 26% of the world population will be over 65 years old.

The world of the 21<sup>st</sup> century is experiencing an extraordinary revolution in longevity and since 1950 we have gained on average 25 years in our life expectancy. Every month the population of over 60 years old people is increasing slightly more than 1 million in the world and this number has trend of increasing rapidly.

Nowadays more geriatric patients are seeking root canal therapy (endo treatment), that means this is good news for the profession but on the other hand we'll be faced more calcified canals, more challanging cases, also we need more competency, skills and special training. We need more patience, tolerance, emphaty and overall those mean more stress to the clinician. This phenomenon also has the social aspect i.e increasing health expenses in community for the elderly people, more government contributions, more health care attendants and need for more stronger social security systems. Misfortunately more maltreatment to older people in some communities (some attitudes of examples of «ageism»: kind of discrimination to old in some communities) is also a challenge and problem besides the aging older population themselves (centenarian generation). Healthy Aging is linked to health in earlier stages of life (healthy intrauterine life, healthy children, healthy individuals, healthy old).

Worldwide there is a dramatic increase in number of people with dementia, Alzheimer disease, Parkinson, chronic health problems related obesity, cancer cases, alcoholism and other mal-habits, handicapping and need for assistance. Therefore an endodontist who is working with geriatric patients must be able to; identify the oral conditions common to older individuals, particularly which goes with pathology which increases in frequency with age, should obtain a through medical and medication history from aged patients, also should obtain a psycho-social history which describes factors influencing the older patients' dental needs and ability to obtain care, coordinate dental care with other health care disciplines, i.e: medicine, pharmacy, social work, nursing, etc, understand be able to perform clinical procedures with geriatric patients that consider their special needs and must have good clinical skills and competency and must be must be aware of geriatric endodontics is a special field of endodontics and this is a team-work. As life expectancy and the percentage of older population are increasing and geriatric endodontics is gaining more significant role in complete dental care.

As a dental professional or endodontist we should realize how important is the tooth in the elderly.here we can itemize them as preserving to continuum of dental arch and protecting the integrity of gnatostomotogic system, enhancing the retention of a removable prosthesis, especially when loss of the tooth will result in a free-end saddle, retainer for the fix prosthesis, maintaining an important occlusal contact in a reduced dentition, final standing molars preserving contributes for vertical dimension, preserving bone, function of chewing and strong contribution to digestion, aesthetic considerations, prevention of gum tissue and pain-free life and life quality.

According to a questionnaire study on 240 geriatric patients over 60 years (Oral Status of Geriatric Patients, and their Demand and Satisfaction Chung MK, Lee CY, Chang HJ *J Korean Acad Prosthodont 2001, 39:4;323-335*) the main complaint with their existing removable prosthesis (32%), second with 30% caries and endodontic problems, approximately half of the geriatric patients had 21 or more remaining teeth, 48% of those 240 patients using removable prosthesis (115 patients), 43% of them have fixed prosthesis (103 patients). As it is seen here endodontics is gaining great importance in the aging world.

In conclusion, geriatric endodontics will gain a more significant role in complete dental care because of the "aging society". Dental services including root canal procedures, for the elderly population of the future are anticipated to be of two general types (I) Services for the relatively healthy elderly who are functionally independent and (II) Services for elderly patients with complex conditions and problems who are functionally dependent. The second group will require care from practitioners who have specialized and advanced training in geriatric dentistry. This age group being targeted in dental education programs and advanced training through improved curriculum, research, and publication on aging.

As some recommendations teaching geriatric endodontics as a specialty (and/or as a part of endo programs, specific clinical courses or as a sub-specialty of endodontics) to handle the new clinical challanges for coming elder generation, establishing geriatric consultation teams (gerodontic team) in the hospitals and faculties, mobile services (dental mobile units to serve elderly and compromised patients near their place), government-university-dental health team coordination to create new health policies for geriatric dental patients and increasing the budgets or social compansations for geriatric endodontic applications will reduce other dental expenses which are already more expensive rather than endodontics.

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