

МОНГОЛ УЛСЫН БОЛОВСРОЛ СОЁЛ, ШИНЖЛЭХ УХААНЫ ЯАМ
АНАГААХЫН ШИНЖЛЭХ УХААНЫ ҮНДЭСНИЙ ИХ СУРГУУЛЬ

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ТӨРИЙН УЛАМБАЯР

ЭРҮҮНИЙ ЯСНЫ СИЙРЭГЖИЛТИЙГ ДЭЛГЭМЭЛ РЕНТГЕН
ЗУРАГТ СУДАЛСАН ДҮН

Е 720400 Нүүр ам судлал

Анагаах ухааны магистрын зэрэг горилсон нэг сэдэвт бүтээл

Улаанбаатар хот

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ТОВЧ ХУРААНГУЙ

Үндэслэл: Дэлхийн хүн амын дунд ясны сийрэгжилт өвчин жилээс жилд нэмэгдэж, түүнээс шалтгаалсан хугарал ихэсч байгааг ДЭМБ-с онцлон тэмдэглэсэн байна. Дэлхийд жилд 200 сая хүн ясны сийрэгжилтээр өвчилж, 8.9 сая хүний яс нь энэ шалтгаанаар хугарч байдаг гэжээ. Дараагийн 10 жилд хугарлын давтамж 60 хүртэл хувиар өсөх хандлагатай байгааг судлаачид тооцоолон гаргасан байна.

ДЭМБ-ын мэдээлснээр ясны сийрэгжилт нь зүрх судас, хавдар, чихрийн шижин өвчний дараа дөрөвдүгээрт ясны орж байна. Эмнэлзүйн анхны шинж тэмдэг илрэх хүртэл тэр болгон оношлогддоггүй учир уг өвчнийг мөн “чимээгүй өвчин” гэж нэрлэдэг байна. Ясны сийрэгжилт гэдэг нь яс хэврэгшиж, ясны жин буурч, хэлбэр хэмжээ нь өөрчлөгдөж, түүнд агуулагдах эрдэс бодис алдагдахыг хэлнэ. Өөрөөр хэлбэл ясны нягт, хатуу шинж чанар буурч, коллаген кальцийн тэнцвэр алдагдан яс сийрэг болно.

Ерөнхий биеийн ясны сийрэгжилт нь эрүүний ясны сийрэгжилттэй хавсардаг гэсэн анхны судалгаанууд 1960-аад онд гарсан байна. Эрүүний рентген зурагт эрүүний ясны холтослог давхаргын өргөн, сүвэрхэг байдлыг үнэлэх нь ясны сийрэгжилтийг илрүүлэх үндсэн хэмжүүр болдог гэж судлаачид үздэг байна. Судалгаагаар нуруу, ташаа, шууны нягтрал алдагдаж сийрэгжих нь эрүүний ястай хавсарч тохиолддогийг судлаачид тогтоосон байна. Ясны сийрэгжилтийг эмчилгээ оношилгоонд рентген зургийг байнга хэрэглэдэг шүдний эмч анхлан оношлох боломжтой гэж судлаачид үзэж байна.

ЗОРИЛГО: Эрүүний ясны сийрэгжилтийг дэлгэмэл рентген зурагт радиоморфометрик индексээр тодорхойлоход оршино.

СУДАЛГААНЫ ХЭРЭГЛЭГДЭХҮҮН, АРГА ЗҮЙ: Судалгааг дескрептив судалгааны нэг агшингийн загвараар баримтад тулгуурлан хийв. Судалгааг АШУҮИС-ийн НАСС-ийн рентген оношилгооны кабинетад 2014 оны 04 сарын 01-ээс 2015 оны 07 сарын хооронд үйлчлүүлсэн 6900 үйлчлүүлэгчийн рентген зургаас тусгай шалгуурын дагуу 16-19, 20-29, 30-39, 40-49, 50-59, 60-аас дээш гэсэн 6 насны бүлгээр 603 зургийн сонгон авч оочны, эрүүний дэлгэмэл рентген, эрүүний ясны холтослог давхаргын

гэсэн 3 үндсэн индекс, бүрэн шүдгүйдлийн үед нэмэлтээр эрүүний түүшин ясны шимэгдлийн индексийг тодорхойлов.

СУДАЛГААНЫ ҮР ДҮН: Судалгаанд авсан 603 үйлчлүүлэгчийн дэлгэмэл рентген зургийн 38.6% нь эрэгтэйчүүдийнх, 61.4% нь эмэгтэйчүүдийнх байж, дундаж нас нь 40 ± 1.39 , хүйсийн харьцаа 1:1.5 байв. Судалгаанд хамрагсдын 75.3% нь C1 буюу эрүүний ясны холтослог давхаргын хэмжээ хэвийн, 21.1% нь C2 буюу эрүүний ясны холтослог давхарга хагас саран шимэгдэлтэй, 3.6% нь C3 буюу эрүүний ясны хүнд шимэгдэлтэй байлаа. Дэлгэмэл рентген индекс стандарт үзүүлэлтээс 0.2-0.3 мм, оочны индекс 0.5-0.6 мм тус тус бага байна.

ДҮГНЭЛТ:

1. Судалсан 603 дэлгэмэл рентген зурагт эрүүний ясны холтослог давхаргын хагас саран шимэгдэл 21.1%, хүнд шимэгдэл 3.6% илэрч, дэлгэмэл рентген индекс стандарт үзүүлэлтээс 0.2-0.3 мм, оочны индекс 0.5-0.6 мм тус тус бага байна.

2. Эрүүний холтослог давхаргын хагас саран шимэгдэл 16-19 насанд 8%, 20-29 насанд 4%, 30-39 насанд 13%, 40-49 насанд 11.9%, 50-59 насанд 30.7%, 60-с дээш насанд 59%, хүнд шимэгдэл 50-59 насанд 7.9%, 60-с дээш насанд 14% тохиолдсон байна.

3. Кеннедийн I ангилалын үед бүх насныханд эрүүний ясны холтослог давхаргын хагас саран ба хүнд шимэгдлүүд илэрч, оочны индекс, дэлгэмэл рентген индекс стандарт үзүүлэлтээс бага байв.

ТҮЛХҮҮР ҮГ: Дэлгэмэл рентген зураг, ясны сийрэгжилт, оочны индекс, дэлгэмэл рентген индекс, эрүүний гадна холтослог давхрагын индекс.

(ABSTRACT)

Assessment of the Mandibular Osteoporosis from Dental Panoramic Radiographs

Background: Osteoporosis is a growing public health problem due to its global prevalence. Currently it is estimated that annually over 200 million people suffer from this disease and 8.9 million osteoporotic fracture incidents are reported by World Health Organization. It is on the 4th place after the heart diseases, cancer and diabetes. The US National Osteoporosis foundation reported that worldwide 1 in 3 women and 1 in 5 men, aged over 50, are at risk of an osteoporotic fracture. The International Osteoporosis foundation alarms about the increasing osteoporotic occasions among the younger individuals.

Osteoporosis is a metabolic bone disease characterized by decreased bone mass, poor bone quality and bone deformations. It means that there occurs the collagen and calcium imbalance and the bone density loss. As a result the bone becomes porous and easy fractured. Mostly it affects the other organs' bone tissue and cause the osteoporosis in the spine, hip, wrist and mandible.

A dentist is often the most regularly visited doctor in the population; consequently an evaluation of the mandibular cortex width (MCW) and porosity from the dental panoramic radiographs can be the basic measurement of the Osteoporosis. The earliest suggestion of an association between osteoporosis and oral bone loss was made in 1960.

Purpose: To evaluate the mandible osteoporosis on the dental panoramic radiographs.

Materials and Methods: Randomly selected 603 from the 6900 cases who were received either routine or emergency dental care in August, 2014- July, 2015 (233 men, 370 women; age range 16-85 years) were evaluated at the Department of Oral Diagnosis and Radiology, Department of Dentistry, Mongolian National University of Medical Science. Descriptive research method was used to assess the osteoporotic status according to the patients values of the radiomorphometric indices including Mandibular Cortical Indices

C1, C2, C3 (MCI), Mandibular Alveolar Bone Resorption Index, panoramic mandibular index (PMI), and Mental Index (MI). The dental status was recorded into 3 groups dentate, partially dentate and edentulous. A partially dentate status was recorded by Kennedy classification.

Results: The 38.6% (233) and 61.4% (370) of the 603 participants were men and women, respectively. Their mean age was 40 ± 1.39 and the gender ratio was 1:1.5.

The 75.3% or 454 subjects that has normal cortical edge classified as the C1 category of MCI, the 21.1% (127) whose cortical edge was fragmented with semilunar defects belonged to C2, whereas the 3.6% (22) with the porosity went to the C3.

The Panoramic Mandibular Index showed that the mandible was shrunk to 0.2-0.3 mm than the standard deviation; the women's were 0.025 mm shorter than the men's.

The right and left sides of the mental indices were 0.5 and 0.6 mm shorter than standards, correspondingly. But the men's MI was 0.2-0.3 mm longer than the women's.

Conclusion:

1. According to the dental panoramic radiograms the 21.1% and 3.6% of the participants were grouped to C2 and C3 respectively. The PMI shortened in 0.2-0.3 mm. And the right and left MI were deviated from the standard in 0.5 and 0.6 mm correspondingly.
2. Concerning to the participants' ages they were divided into the 3 categories of the MCI, the C2: the 8% of the 16-19 age group, 4% - 20-29 ages, 13% - 30-39 ages, 11.9% - 40-49 ages, 30.7% - 50-59 ages, and 59% in 60 and over. The C3 group: 7.9% in 50-59 ages and 14% - above the 60s.
3. The Kennedy Classifications class I dominate in any age groups. Mental and Panoramic Mandibular Indexes were shorter than others.

Key words: Osteoporosis, panorama, Mental Index, Panoramic Mandibular Index, Mandibular Cortical Index.

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