

# **EUROPEAN SCIENTIFIC DISCUSSIONS**

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## **IS LEFT-HANDEDNESS TAKING INTO ACCOUNT ACTUAL IN DENTISTRY?**

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Awareness of some common issues associated with left-handedness has been growing in recent years and designers are getting much more considerate. Specialists from different countries found and find difficulties for left-handed and ambidextrous doctors because of the devices created for right-handers and develop common teaching programs at national level: in Canada [1, p.819-826; 2, p.271-277]. Saudi Arabian medical students right- and left-handers did not demonstrate valuable differences while working with the tools for left- and right-handers [3, p.1-7] but such data are practically absent in scientific literature. Left-handedness disadvantage in a given case is more due to barriers than inherent lesser ability [4, p.554-557]. Left-handed scissors, secateurs and other tools are also becoming more widely available. Equipment for use in dentistry by left-handers is also much easier to set up than in the past. Left-handed surgical instruments were created not so long ago; there is a real beginning for special devices usage for left-handers in dentistry in part in Turkey and in Belgorod (Russia) [5, p.188-194]. At some schools for instance at Belgrade University School of Dentistry (Yugoslavia), at the department of restorative dentistry and endodontics, changing conditions for left-handers education and enabling their proper development is proposed and some researches are in process in such a direction [6, p.138-143].

Rather interesting data have been received in Turkey [7, p.255-266]. The

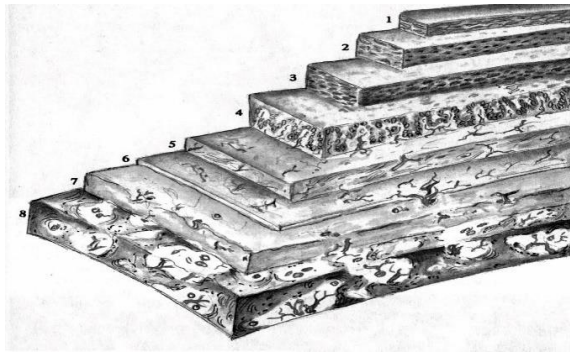
purpose of this study was two-fold: first, to find out the musculo-skeletal disorders differences between left- and right-handed dentists and second, to describe the prevalence and distribution of symptoms of musculo-skeletal disorders among Turkish students who are practicing general dentistry. Left- and right- handed students had headaches (34%, 22%), pins and needles (35%, 22%), weakness (42%, 40%), numbness (23%, 19%), neck pain (67%, 43%), back pain (56%, 47%), upper limb pain (46%, 43%) and shoulder pain (78%, 58%), respectively. Female students were not significantly different from males in musculo-skeletal symptoms. The position adopted by the student was significantly related to the intensity of pain. Left-handed students especially suffered from neck and shoulder pain when compared with right-handed students. Such pain as it is clear it is professional for dentists. The authors think that a modification of work practices appears to be effective in decreasing the prevalence of symptoms. The best ergonomic working principles should be taught to the students, dental schools should provide a comfortable working environment, and further studies are required to identify factors that will reduce the prevalence of symptoms among those practicing general dentistry.

Face asymmetry was assessed in right- and left-handed men and women by means of posteroanterior radiographic cephalometry method [8, p.147-159] the results of which demonstrated following: areas on the left were significantly larger than those on the right in right-handers; left-handers were inconsistent in asymmetry though they had tendency to have larger facial areas on the right than on the left; gender was of especial significance for left-handed people. It was suggested that some brain regions asymmetric development may be responsible for asymmetric facial regions development. There is a trying to predict hand skill and cognitive abilities from craniofacial width in right and left-handed men and women taking into account skeletal structure relation to cerebral function and possibility of parallel development of craniofacial skeleton and brain under common genes influence [9, p.383-412].

Even this brief review allows concluding that dominant extremity taking into account is really important in dentistry.

## LITERATURE

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**Рис.1. Структура пародонта**

### **Результати та обговорення/Results and discussion.**

Дослідження поширеності захворювань пародонта впродовж багатьох десятиліть не втрачають актуальності. Ще у 60-х роках минулого століття Новик І.О. зазначав про значні протиріччя у опублікованих матеріалах та відсутність достовірної картини частоти захворювання [1]. Наприкінці ХІХ-початку ХХ ст. Black G.V. констатував, що частота пародонтиту зростає, у першу чергу, в залежності від віку: ураженість населення США у віці від 20 до 25 років становила 13,1%, а у віці 50 років - 88% [2-13].

Проведені масові обстеження [14-16] міського населення європейської частини Радянського Союзу у 50 роках минулого століття показали, що у віці 20-30 років захворювання пародонта діагностували у 17%, а у віці 12-25 років - 31,9% обстежених.

Увагу багатьох дослідників привертала віковий аспекти епідеміології захворювань пародонта, оскільки виявлення вікової динаміки та періоду ініціації ураження пародонта сприяло би розробці ефективних у часі та обсязі заходів з їх профілактики та лікування. За даними А.П.Канканяна та В.К.Леонтьєва [17-20], гінгівіт виявляється вже у дітей молодше 5 років. Поширеність гінгівіту у цій віковій групі коливається від 1-2% до 30-40%. Можливо, ці відмінності відображають варіації імунологічного статусу та є реакцією на його формування. За літературними даними, у підлітків у більшості випадків зустрічаються гінгівіти, але з кожним роком у всьому світі зростає поширеність більш глибоких деструктивно-запальних уражень тканин пародонта [21].