

## **ELECTROACUPUNCTURE ANALGESIA IN ORAL SURGERY**

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### **ABSTRACT:**

The authors describe the major moments of the acupuncture method history and development. The classical “Chinese” period and the modern divisions of acupuncture as well as electroacupuncture analgesia (EAA) are presented. The EAA application in oral surgery is point of interest for the authors. In the present review the efficiency of EAA during surgical treatment is discussed. It is harmless and easy applied technique, nontoxic and especially recommended for allergy predisposed patients.

**Key words:** pain control, acupuncture, electroacupuncture analgesia, oral surgery

The acupuncture “date of birth” is unknown but the method is famous for more than 5 000 years ago and considered one of the oldest medicine treatment methods. Some archeological findings turn back the acupuncture in the prehistorically period when the early man used different sharp objects puncturing the painful area in order to control the pain. The ancient Chinese word for acupuncture is “Bian-shi” (“sharp stone”) [5, 8] that confirm the historic expertise. This long-time experience helps healers to determine regularity in influence over different puncture points in different illness. It is the period of knowledge accumulation and puncture points determination and systematization [3, 5, 6].

China is considered to be a “father land” of acupuncture except the fact that the method is not exclusively Chinese “know how”. According to Mann F. (president of English Acupuncture Society) in the London museum is treasured papyrus manuscript with acupuncture points marked, dated 1550 c.B.C. The odds are that the acupuncture is come out from Tibet, Nepal or India, but it was widespread in China so that the method is named “Chjeng-Tsju” therapy [1, 2, 8, 16].

First professional schools for “Chjeng-Tsju” therapy are founded in 1076. At the end of XIX and the beginning of XX centuries in China aroused the first physicians educated in Europe and the Chinese medicine was separated into traditional (Chinese) and modern (European) divisions [16].

In Europe the acupuncture method came with mis-

sionaries and wayfarers in XVII c. The book “The secrets of Chinese medicine” was edited in 1671 in Grenoble by Harvieu. Firstly, data for electroacupuncture can be found in “Report on Acupuncture. Moxa and Acupuncture” by the French author Sarlaudier (1825). The original idea for Electro Acupuncture Analgesia (EAA) belongs to Sarlaudie. Some authors considered Parkins to be investigator who first in 1796 proposed static electricity in order to enhance the classic acupuncture effects. EAA became widespread during last three decades due to its effectiveness and easy management technique. Remarkable experience in this field has R. de Lafuie (France) and R. Foll (Germany) [4]. Rost uses EAA as diagnostic tool in focal induced illness and allergy diagnostic.

The Romanian investigators Bratu I., Prodescu V., and Georgescu A. studied the diagnostic information and therapeutic effects of EAA and developed method for complex non invasive treatment of “high-risk” predisposed patients. The EAA method is also used in Austria (Bischko J. 1973), Italy (Laura Y. 1976), USA (Chan P.) etc.

In ex-USSR the EAA method is introduced in 1956 by Vogralchik, Tykochinskaya, Usova, Tabeeva etc. The special contribution of the Russian division is a LASER application over selected acupuncture points.

In 1975 Limouge, Darasse and Kespi made up generator of electric waves and impulses identical to the normal electric activity of the human body organs and cells. The authors discussed the puncture points determination and electricity nature (frequency, intensity etc.). The method is harmless and advisable for surgery in oral cavity domain due to its effectiveness. The puncture points are located out of operative area as well [7, 9, 12].

Lande reports his experience with EAA in oral surgery interventions. He uses percutaneous electric stimulation by needle fixed in acupuncture points and attains hypoalgesia in contact-out areas [10, 14]. When the point “H-gu” is stimulated the pain sensitivity base is increased to 115% and even 20% when placebo points stimulation [11, 15, 17]. The author uses alternating current (a.c.) with 2-7 Hz frequency and intensity increasing to bearable muscle contraction reaction. The distal teeth are influenced by homolateral needle position fixing then for an-

terior teeth the bilateral position is preferred. The body located point (bilateral fixing) is "H-gu". The author reports 75 treated patients with 54% success [15].

Jatczak et al. modified the EAA method for oral surgery application. The electro stimulation is performed by two superficial electrodes fixed on the selected skin area. The electro impulses are ranged 2-250 Hz (100Hz). 21 patients of total 31 are prepared for short-lasting non complicated tooth extraction without, any pain experience [13, 16].

Recently the auricular EAA became popular and Deuker E. applied the method as a single analgesia method in dental surgery [13].

The effectiveness of EAA depends on the patients' age, physical and psychological condition, blood pressure

etc. The EAA method is not efficient enough in anergic patients, hypertonic or diabetes cases, but successful in hypotonic patients [17].

Usually EAA is accomplished with drug administration in order to cope with unpleasant feelings of puncture and anxiety. Diazepam, Talamonal, Pentozocyn and Atropine are preferred [17].

Based on current literature it can be concluded EAA get more popular alternative in modern medicine. The best results are reported in dentistry and oral surgery. The EAA method is effective, easy management in any circumstances. What is more, the great rate of patients with poly allergy predisposition is a serious reason to consider EAA as a method of choice in dental anesthesiology. EAA is non invasive, non toxic and safety method.

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