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# MEDICAL LEGAL ISSUES IN ORAL AND DENTAL HEALTH IN ADOLESCENTS WITH ARRHYTHMIAS

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## Abstract

Medical law is an interdisciplinary component among different legal disciplines. It is a branch of legal fields that was noticed for the first time in the Royal College of England as a trend of legal fields in the early 1990s and gradually became popular in prestigious universities around the world. Medical law approaches "criminal law" when it explains crimes and medical errors and the punishments governing them in the light of medical penal law, and when it bases its study on the doctor-patient relationship, medical contracts and the role of third parties. It is placed in the realm of "private rights"; Therefore, among the various fields of medical sciences, you cannot find a field that is outside the scope of the study of medical law. Issues such as medical contracts, medical equipment, medical errors, legal and criminal responsibilities of doctors, nurses, hospitals, clinics and laboratory and treatment and rehabilitation centers, patient rights charter, health rights, genetic rights, pharmaceutical rights, intellectual property rights In the field of medicine and pharmaceuticals, psychiatric rights, biotechnological rights, medical patents and paramedical rights, etc. are necessary. The result of the study of recurrent herpetic stomatitis et adolescents with arrhythmias therapy carried out 36 patients in age from 10 to 18 year. Before and after treatment antiviral agent assessed immune status from adolescents. Watched local oral immunity (SIgA), cellular immunity (in the blast transformation test with phytohemagglutinin), indicators humoral immunity values (IgA, IgG and IgE) and C3 complement component. Received result proved clinical efficacy antiviral agent, extending the time of remission ( $p < 0,001$ ) recurrent herpetic stomatitis and also improves clinic arrhythmia.

**Keywords:** Medical Laws, Criminal Law, Legal issues, stomatitis, arrhythmia, adolescents.

## 1. INTRODUCTION

A healthy teenager is a modern issue and the future of Russia.

Modern teenagers should be healthy and safe in life. In dental practice, adolescents often seek help with recurrent herpetic stomatitis (RHS). Relapses of RHS are accompanied by somatic diseases (1,2). A concomitant disease in adolescents with RHS is arrhythmia (3). After analyzing modern youth, we identified adolescents with RHS burdened with arrhythmia. This combination affects not only the health of the oral cavity, but also has a negative impact on the state of the entire body of the younger generation (4,5). Nowadays, there is an increase in the growth of RHS in adolescents burdened with arrhythmia. The combination of such pathologies requires a multidisciplinary approach in this group of patients (6). The risk of arrhythmia is noted in adolescence. Dental health plays a leading role in this group of patients (7). The health of adolescents is one of the main tasks of healthcare. The immune system plays a significant role in the health of adolescents. One of the causes of recurrent herpetic stomatitis (RHS) is a deficiency of secretory IgA (8). We decided to

look at the immune status in this group of patients and make a comparative analysis of immunological parameters before and after immunomodulatory therapy in adolescents with RHS, burdened with arrhythmia.

The purpose of the study is to give a assess health of the oral cavity of adolescents with RHS, burdened with arrhythmia.

## **1.1. THE LEGAL RELATIONSHIP BETWEEN THE PATIENT AND THE DOCTOR**

The legal relationship between the patient and the doctor, until there is a problem in the treatment between the doctor and the patient, there is no talk about this legal relationship and its effects and results, and in the usual way, the patient refers to a doctor and the doctor also according to custom. And the habit of medical procedures begins; While this selection and referral to a certain doctor and acceptance of treatment and treatment of the patient from the medical field are governed by legal and conditional effects; Because as a result of this mutual behavior, a private contract called treatment contract is concluded.

## **1.2. LEGAL ISSUES OF TREATMENT CONTRACT**

A contract or a contract in the general and customary sense means an agreement between two or more people (agreement of one or more wills) to perform one or more specific and reciprocal actions; both financial and non-financial; Such as buying and selling (sale) where the seller undertakes to give a certain type with specified characteristics and the buyer also undertakes to pay the amount (price) and the value of the goods. In every contract, there are at least two parties, and the consent and agreement of the parties is a necessary condition for concluding the contract. Other conditions are also necessary for the validity of the contract; including the legitimacy and legality of the subject of the transaction, as well as the ability of the parties to enter into the transaction. There are two parties in the treatment contract: the doctor and the patient. According to this contract, the patient has the right to choose his own doctor under normal conditions, and the doctor starts treatment after obtaining the patient's consent for the treatment and after knowing the type of disease in his field of expertise. Although, in practice, all the steps end with a reference and examination and writing a prescription; However, from the legal point of view, every action and reaction has its own legal and legal effects and results, and legally, a contract with its own rules governs the relationship between the doctor and the patient, and this contract until the end of the treatment or the patient withdraws from the treatment, the effects And it has its own legal consequences and will be terminated after the prescription of the medicine by the doctor. Examining the nature of the treatment contract is very important in determining medical responsibility or non-responsibility when there is no contractual relationship between the doctor and the patient. There are different views about the nature of the treatment contract, which include: Those who say that the treatment contract is a rental theory believe that the general rules of the rental contract govern in all businesses where the owner of the profession commits to providing services and they add that the treatment contract is like a special hire contract that works for someone else for a certain period of time. It is slow and deserves a reward. It seems that this view is wrong. Because in the lease contract, the term must be known, otherwise, the contract will be void. While in the treatment contract, the duration of the treatment is unclear. Therefore, the treatment contract is not governed by the general rules of rent.

## **1.3. MEDICAL LAWS**

Since almost all legal provisions are moral or, in some way, their goal is ethics, and on the other hand, law can support ethics and maintain it; Therefore, proper use and support of each against the other can be effective in advancing practical goals. Ethics and rights have a close and unavoidable relationship. Contrary to the opinion of some legal philosophers regarding the separation of law from morality, law is clearly a historical deposit of morality. Medical ethics and medical law are among the categories that will benefit from this relationship. The correct understanding of this relationship and the proper use of the gentleness of ethics and coercion of rights can take care of many emerging issues in the field of health, which are sensitive issues. Moral responsibility is a responsibility that the legislator did not express and create, and it means the customary, moral and social responsibility of the doctor, from the point of view of his religion and contemporary norms. The legal responsibility is that which is foreseen in the law and has a guarantee of legal

enforcement (criminal and civil). In criminal and civil, its common face is breach of contract and it can be requested from the court. One of the differences between moral and legal responsibility is the guarantee of their implementation. Because, although moral responsibility is a guarantee of the implementation of the rules of ethics, it is not possible to apply it abroad and demand it from the court. In addition, it is possible that the limits of the characteristics of the subjects of the laws are different from the limits and characteristics of the moral subjects.

## 2. METHODS

In order to study the role of immunological status in adolescents with arrhythmia, we identified 36 adolescents with RHS, burdened with arrhythmia. These patients made up a follow-up group aged 10 to 18 years. All the teenagers were under the supervision of a dentist and a cardiologist. Healthy adolescents are represented as a control group. After examining the adolescents, we conducted traditional therapy of the underlying disease. But the course of the disease did not change, and But the course of the disease did not change, and relapses of the underlying disease did not decrease. Therefore, we prescribed to patients a drug with an immunomodulatory and antiviral effect - glucosaminylmuramyl dipeptide, which is an activator of innate and acquired immunity, strengthens the body's protection against viral and bacterial infections. The drug does not cause pathological changes on the part of internal organs. The drug has low toxicity.

## 3. RESULTS AND DISCUSSION

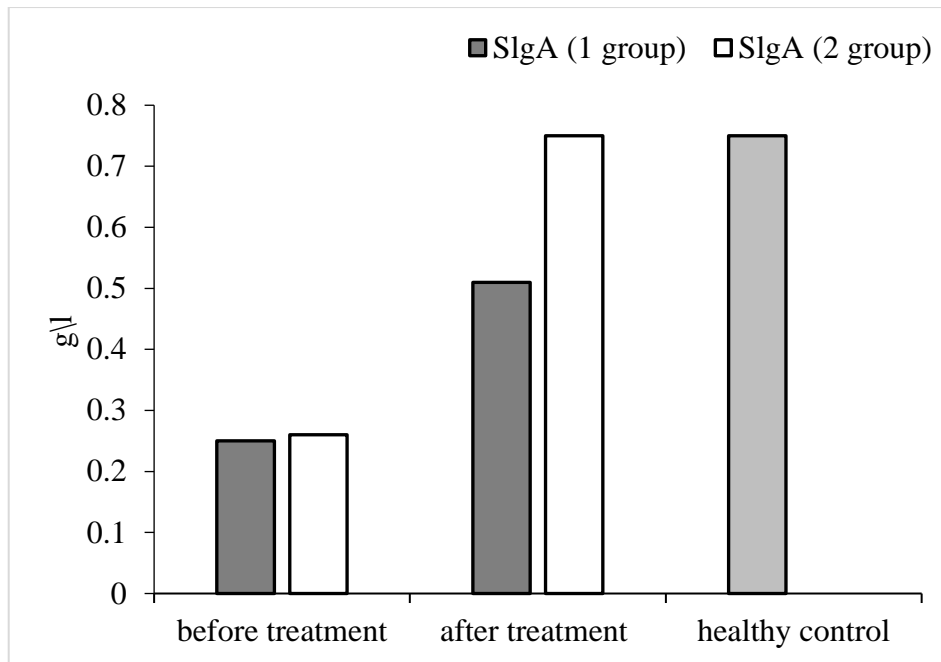
The clinical efficacy of RHS therapy in adolescents with arrhythmia was analyzed by immunological parameters before treatment, and then after treatment with an immunomodulatory drug (see Fig.1,2) to study the assessment of oral health.

Prior to treatment, local oral immunity (SIgA) was  $0,29 \pm 0,013$  g/l for mild severity,  $0,26 \pm 0,018$  g/l for moderate severity. For severe,  $0,18 \pm 0,025$  g/l. Humoral immunity (IgA) with mild severity was  $1,09 \pm 0,15$  g/l, with moderate severity –  $1,06 \pm 0,8$  g/l, with severe severity –  $1,03 \pm 0,64$  g/l. IgG was  $10,43 \pm 0,7$  g/l for mild severity,  $8,12 \pm 0,8$  g/l for moderate severity, and  $8,14 \pm 0,9$  g/l for severe severity. IgE was  $268 \pm 1,13$  ME/ml in mild cases,  $324 \pm 1,14$  ME/ml in moderate cases, and  $385 \pm 1,56$  ME/ml in severe cases.

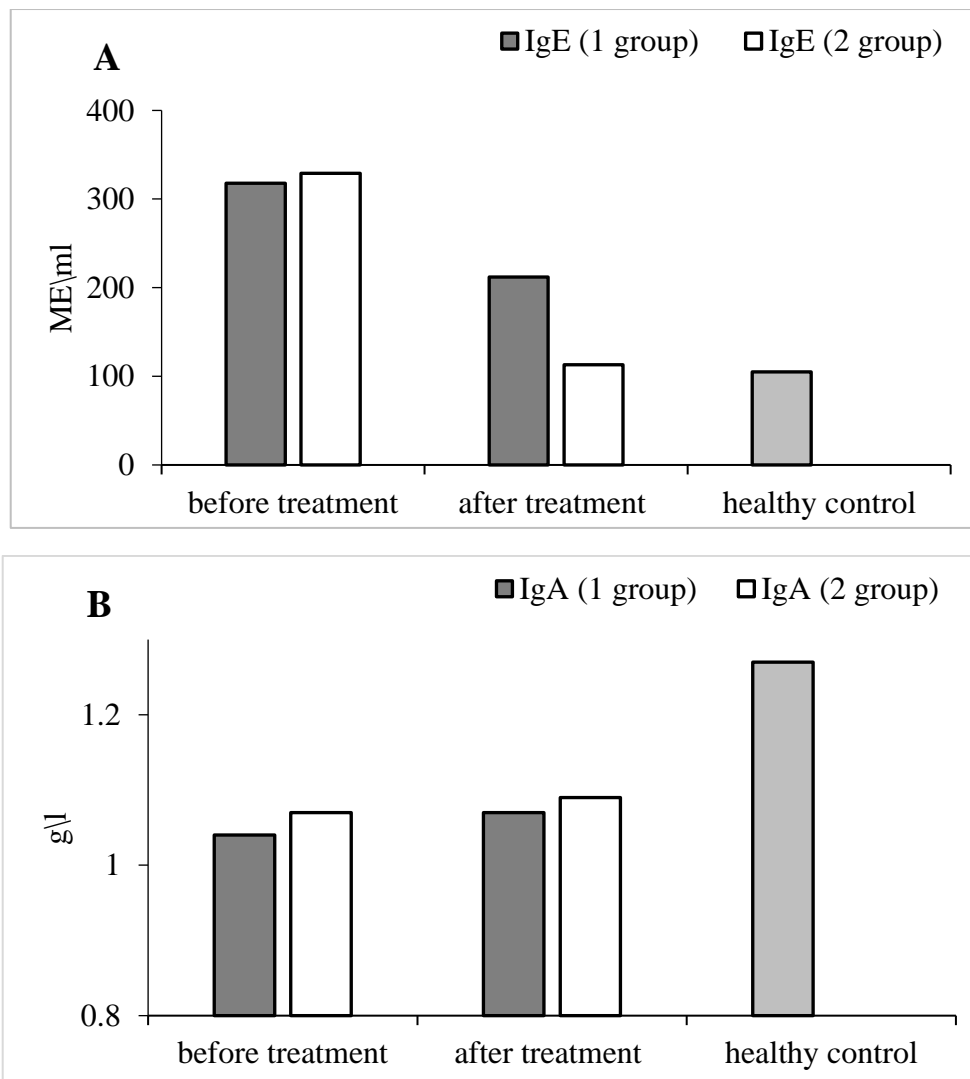
Cellular immunity was assessed by RBTL with FGA. With a mild degree of the disease was  $73,1 \pm 0,6\%$ , with moderate severity –  $36,1 \pm 0,1\%$ , with severe severity –  $18,3 \pm 0,04\%$ . The C3 component of the complement with mild severity was  $0,31 \pm 1,3$ , with moderate severity –  $0,73 \pm 4,1$ , with severe severity –  $0,75 \pm 2,1$

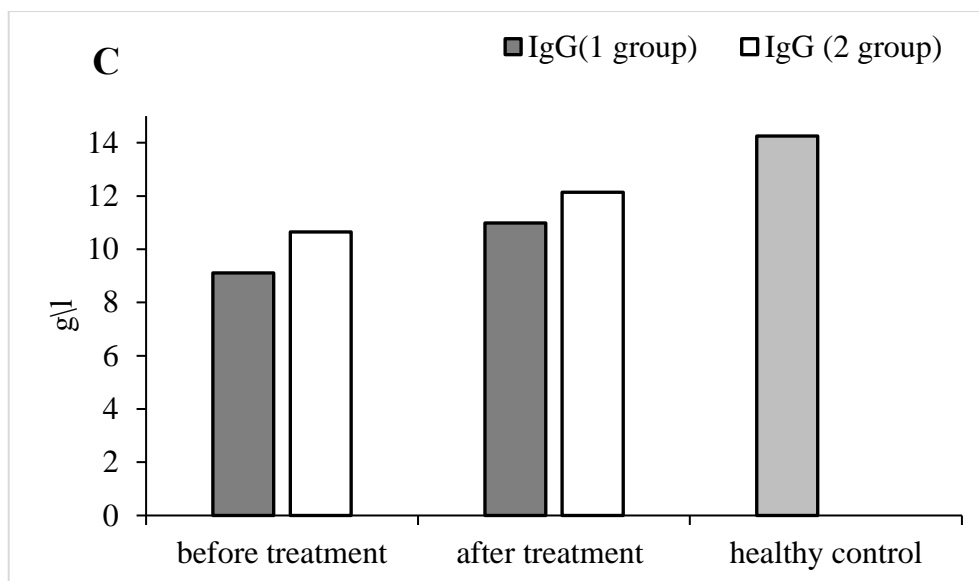
After treatment with RHS immunomodulator, the indicators of local oral immunity (SIgA) were: with mild severity –  $0,76 \pm 0,045$  g / l, with moderate severity –  $0,75 \pm 0,015$  g / l, with severe severity –  $0,76 \pm 0,043$  g/l. The indicators of humoral immunity (IgA) with mild degree were  $1,07 \pm 0,5$  g / l, with moderate severity –  $1,07 \pm 0,7$  g / l, with severe – The indicators of humoral immunity (IgA) with mild degree were  $1,07 \pm 0,5$  g/l, with moderate severity –  $1,07 \pm 0,7$  g/l, with severe –  $1,22 \pm 0,7$  g/l. IgG was: with mild severity –  $12,68 \pm 0,4$  g/l, with moderate severity –  $12,23 \pm 0,5$  g/l, with severe severity –  $12,31 \pm 0,6$  g/l. The IgE indicators were: at mild severity -  $117 \pm 1,54$  ME/ml, at moderate severity -  $113 \pm 1,54$  ME/ml, at severe severity -  $124 \pm 1,26$  ME/ml. Cellular immunity (RBTL with FGA) was: with mild severity –  $52,3 \pm 0,6\%$ , with moderate severity –  $53,4 \pm 0,5\%$ , with severe severity –  $54,5 \pm 0,5\%$ . The indicators of the C3 component of the complement were: with mild severity –  $1,43 \pm 2,8$ , with moderate severity –  $0,78 \pm 1,9$ , with severe severity –  $0,89 \pm 2,9$ .

Evaluation of oral health after therapy with the RHS immunomodulator in adolescents with arrhythmia showed that the immunological indicators of local immunity increased, that is, they approached the group of healthy adolescents. In the humoral immunity link, IgA and IgG significantly ( $p < 0,001$ ) increased, and the concentration of IgE significantly ( $p < 0,001$ ) decreased. Cellular immunity - RBTL with FGA significantly ( $p < 0,001$ ) increased, which approached the group of healthy adolescents.



**Figure 1.** Indicators of local oral immunity in adolescents with arrhythmia before and after treatment with an immunomodulator (SIgA, g/l).





**Figure 2.** Indicators of humoral immunity in adolescents with arrhythmia before and after treatment with an immunomodulator. A - IgE, ME/ml, B - IgA, g/l, C - IgG, g/L.

#### 4. SUMMARY

Assessment of oral health has shown that a healthy teenager is an important component of the future resource of Russia. All patients who were examined before receiving immunotherapy felt fatigue, weakness, fatigue. After the courses of immunomodulator therapy, the health of this group of patients improved, as evidenced by the clinical picture of RHS: the periods of the disease were reduced, the severe severity of RHS showed high recovery results (89%); and the immune status indicators approached the group of healthy people. The clinic of the concomitant disease also showed improvements. Arrhythmia became easier in 51% of cases.

#### 5. CONCLUSION

After the therapy, adolescents began to feel more comfortable, to get sick less often, relapses of both the main (RHS) and concomitant diseases (arrhythmia) decreased, stable remission of the disease ( $p < 0,001$ ) began to be observed, as well as indicators of immunological status improved. Clinical studies have shown the effectiveness of the use of an immunomodulator in the therapy of RHS in adolescents with arrhythmia. Assessment of oral health is aimed at improving the dental status and resistance of the body in this group of patients and can be recommended for medical practice.

#### 6. ACKNOWLEDGEMENTS

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