

Research methods. A clinical, functional, and laboratory examination was conducted on 120 pregnant women aged 18–49 years. Additionally, 20 non–pregnant women were examined as a control group. The participants were divided into three groups: The first main group included 60 pregnant women with preeclampsia; The second comparison group included 40 pregnant women without preeclampsia; The third control group consisted of 20 non–pregnant women of reproductive age.

Results and its discussion. A comparative study assessed the severity and prevalence of periodontal diseases in pregnant women with preeclampsia, comparing them to those with physiological pregnancies and women of reproductive age. The impact of vascular reactions in preeclampsia on periodontal tissues was evaluated through functional studies. The study also examined combined pathological symptoms in periodontal tissues, considering clinical and biochemical profiles. The role of blood parameter changes, including calcium–magnesium ratio and hormone levels, in the development of periodontal diseases in preeclampsia patients was analyzed. Diagnostic, prognostic, preventive, and therapeutic approaches for treating these diseases were proposed.

Conclusion. The results led to the development, testing, and implementation of key principles for the systemic prevention of periodontal diseases linked to gestational preeclampsia, along with additional recommendations for predicting and treating these diseases amid multifaceted systemic disorders.

REFERENCES

1. Periodontal disease as a risk factor for adverse pregnancy outcomes: a systematic review and meta–analysis of case–control studies/ S. Corbella [et al.] // Odontology. – 2012. – Vol. 100. – P.232–240.
2. Is maternal periodontal disease a risk factor for preterm delivery? / V. Lohsoonthorn [et al.] //American journal of epidemiology. – 2009. – Vol. 169 (6). – P. 731–739.
3. Relationship between periodontitis and pre–eclampsia: a meta–analysis / F. Sgolastra [et al.]//PloS one. – 2013. – Vol. 8(8). – P. 71–78

HISTOLOGICAL VARIATIONS SEEN IN ACUTE PHLEGMONOUS CHOLECYSTITIS TREATED WITH ANTIBIOTIC

Stasiukevich Y.A.¹, Warnakulasuriya Fernando R.S.²

Grodno University Clinic¹, Grodno State Medical University²

Relevance. The incidence of cholecystitis is rising [1], peaking at 60 years of age. The overall mortality rate for acute cholecystitis is around 4%, increasing in the elderly, particularly those with comorbidities [2]. There has been a growing trend toward non–operative treatments for high–risk patients in emergency situations.

By lowering infection and inflammation, antibiotic might provide some symptomatic relief.

Research objectives. The study aimed to investigate reparative processes in gallbladders affected by *E. coli*-induced acute phlegmonous cholecystitis, focusing on treatment with antibiotics.

Research methods. The study involved 24 Chinchilla rabbits (12 males and 12 females, each weighing 3.2 ± 0.15 kg) with induced acute phlegmonous cholecystitis using *Escherichia coli*. The rabbits were randomly divided into three groups: control group (n=6, no treatment), experiment 1 (n=6, treated with puncture and normal saline), and experiment 2 (n=6, treated with puncture and antibiotic). Each group was further divided based on histopathological collection timing at 48 and 72 hours post-experiment, with gallbladder wall sections stained with hematoxylin and eosin for analysis. We used Fisher's exact test since the sample size is small. $P < 0.05$ was considered statistically significant.

Results and its discussion. In Experiments 1a and 1b, gallbladder tissues were collected at 48 and 72 hours, respectively. Histological analysis revealed necrosis, micro-abscesses, ulcerative defects, severe inflammation, and low histiocytic infiltration in the mucous membranes compared to the control group specimens evaluated at the same time intervals. The evaluation at 72 hours showed more severe morphological features, though not statistically significant compared with specimens evaluated at 48 hours.

Experiment 2, which involved treatment with 1 mL of Ceftriaxone, was divided into two subgroups. In Experiment 2a, tissues collected at 48 hours revealed single ulcerative defects and a decrease in neutrophil infiltrates compared to control group evaluated at 48 hours. Experiment 2b, examined at 72 hours, showed no ulcerative defects, necrosis but noted purulent inflammation in mucous layer, with some micro-abscesses and very low neutrophil infiltrates with compared to control group evaluated at 72 hours (p-value 0.0023). when comparing results of experiment 2 at 48 hours and 72 hours, significant positive progression of morphological features which mentioned above were seen in histological evaluation (p-value 0.0047).

Conclusion. Gallbladder puncture, although it can improve the patients condition, is not sufficient for complete recovery itself. The use of antibiotic therapy in combination with puncture is justified with the results of our study. Positive dynamics of histological specimens are seen in the group treated with a combination of puncture and antibiotic.

REFERENCES

1. Diagnostic criteria and severity grading of acute cholecystitis (with videos) J. / M. Yokoe [et al] // Hepato-Biliary-Pancreat. Sci. Tokyo Guidelines.- 2018. – Vol. 25, No.3. – P. 41–54.
2. Conservative treatment of acute cholecystitis: a systematic review and pooled analysis. / C.S. Loozen [et al] // Surg Endos. – 2017. – Vol. 31, No.2. – P. 504–515.