

Table 1. Results of 22 cases

	cure	Turn for the better	invalid	Total efficiency (%)
Immediate	12	9	1	95.5
At the end of the session	10	8	4	81.8
follow-up	9	7	6	72.7

5. Discussion

Anal rectum neurosis is anal rectum symptom complained of nervous system disease, the disease is a kind of produced by the plant nerve disorder, rectal dysfunction and have the characteristics of chronic and refractory disease, clinical incidence of women than men [6]. In Chinese medicine, anorectal neurosis is a "depression" and "pain syndrome" category. In Chinese medicine, it is believed that the disease is caused by the disorder of love, the lack of qi or the lack of blood, and the cause of the cold, fatigue and diet. After acupuncture, the acupuncture method was applied to stimulate the stimulation through the cranial bone and the central lobe of the central lobe. 2nd treatment of patients with anal slightly burning, the anus for du meridian courses had been, on the basis of meridians, attending and principles, by selecting the da-zhui point, clear heat and tired day far take dynamic method, take the Shuigou, cooperate with local movement, share, the acupuncture point total of t2dm with pain, pain stops god.

Keywords: Anorectal neurosis; Acupuncture; Shuigou point; Foot motor sensory area

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POSSIBILITIES OF CHEMICAL MODIFICATION OF GELATINUM BY USING DIHYDROQUERCETIN AND ARABINO GALACTAN

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Abstract The use of biological polymers for the treatment of burn injuries to the skin is widely studied in preclinical and clinical trials. We conducted studies of the effect of gelatin modification with dihydroquercetin and arabinogalactan on its physical and biological properties, important for ensuring optimal conditions for bio printing and growth of cell cultures. The results obtained indicate the potential of a mixture of dihydroquercetin and arabinogalactan (Ag) as gelatin-modifying agents.

Key words: gelatin, dihydroquercetin, arabinogalactan, solubility, treatment of burns, thermal stability.

Thermal skin damage occupies one of the first places in the structure of traumatic diseases (1). In this case, burns lead to prolonged hospitalization of the patient, the use of surgical methods of treatment and the appearance of cosmetic defects that can cause stigmatization of the patient in society. The most important classification of burns, widely used in clinical practice, based on the depth of skin lesions. The first and second degree of burn damage (damage to the layers of the epidermis, including basal cells), does not require the use of surgical methods of treatment, in connection with the possible skin to self-regeneration. Third and fourth degree burns (lesion of the dermis) are indications for the use of surgical methods of treatment using allo-, auto- or xenotransplant skin. Various biological polymers are widely used in the form of films, for the temporary closure of a wound defect (2). One of these polymers is gelatin, which can retain its form and be a carrier of funds. However, in connection with the effect on the biopolymer of an elevated body temperature in the area of a burn defect, as well as various biological active substances (enzymes of neutrophils, macrophages, cytokines, etc.), gelatin is very rapidly depolymerized to a liquid state. In connection with this, increasing the time to depolymerize gelatin and other biological polymers is

an important task. To this end, several techniques have been proposed with the help of collagen with the ordering of their structure and an increase in the thermostability of the biopolymer. One such substance is dihydroquercetin (DHQ) (3). Our work was aimed at solving issues related to the selection of the optimal viscosity of solutions and the concentration of dosing agents to increase the depolymerization time at room temperature (23 ° C) and at 37 ° C.

Material and methods In the study we used the following chemical reagents: gelatin (Reahim, Russia), dihydroquercetin (Ametis, Russia) and arabinogalactan (Ametis, Russia). The optimum concentration of gelatin was selected experimentally using a prototype of an extrusion type biological printer. To this end, gelatin solutions of 5, 10, 15, 20, 25 and 30% were prepared in physiological saline. The evaluation was made on the basis of the determination of the printing time, the size of the obtained polymer filament, and the polymerization time of the gelatin solution in a container with biochernil. Based on the data obtained, two optimal concentrations of gelatin were determined for use as biological inks - 15% and 20%.

The modification was carried out by adding to the gelatin solution 7.5%, 10%, 12% of the solutions of dihydroquercetin and arabinogalactan (in a 1:3 weight ratio) in physiological saline.

Results The thermal stability of the samples was studied under conditions of room temperature (23 ° C) and at 37 ° C. The time of depolymerization of the samples and the time of their complete dissociation into solution were studied. The results are shown in Table 1.

Table №1. The study of the thermal stability of gelatin solutions

Sample	23°C (completedissociation)	37°C (startofdissolution)	37°C (completedissociation)
20% gelatin	20 hours	1 min	1 min 10 sec
20% gelatin + 7,5% DHQ/Ag (9:1 ratio)	22 hours	1 min 50 sec	3 min
20% gelatin + 10% DHQ/Ag (9:1ratio)	>24hours	2 min 10 sec	3 min 20 sec
20%gelatin + 12% DHQ/Ag (9:1 ratio)	> 24 hours	1 min 55 sec	4 min 55 sec

Conclusion From the results obtained, it can be seen that the addition of a solution of dihydroquercetin with arabinogalactan in a 1:3 weight ratio to a 20% solution of gelatin increases the thermal stability of the latter. In this case, a concentration-dependent effect is observed. The obtained data testify to the possible use of dihydroquercetin as a modifying agent for improving physical properties of gelatin, which can find application in the field of biological printing and regenerative medicine.

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OPTIMIZATION OF ESTABLISHMENT OF DIABETIC NEPHROPATHY RAT MODEL WITH DIFFERENT DIETARY PATTERNS

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Abstract: Objective: To investigate the feasibility and superiority of a rat model of diabetic nephropathy induced by intragastric administration of fat emulsion, unilateral nephritic resection and STZ in rats. Methods: Respectively, by fat emulsion, unilateral nephrectomy combined with STZ and high fat and high sugar diet, unilateral nephrectomy combined with STZ induced diabetic nephropathy, the successful model was screened by comparing the sham operation group. All rats were put to death after 4 weeks, measuring the blood sugar, blood lipid, 24 h urine protein, urine trace albumin, serum creatinine, blood urea nitrogen. Results: To compared with high fat and high sugar group, the fat emulsion group's body quality presents the negative growth, water volume and urine volume increased dramatically, 24h urine protein, urine trace albumin. Conclusion: It is feasible to establish a rat model of diabetic nephropathy by means of fat emulsion and unilateral nephrectomy combined with STZ.

Key words: Diabetic nephropathy; Fat emulsion; Chain urea with cephalosporins; Unilateral nephritic resection

Diabetic Nephropathy (DN) is one of the most common chronic microvascular complications of diabetes (Diabetic Mellitus, DM) [1], which is the leading cause of end-stage renal disease (ESRD) and is diabetes.

1 Instruments and Methods