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ANJUMANLAR PLATFORMASI

I RESPUBLIKA ILMIY-AMALIY KONFERENSIYASI

YANGI DAVR ILM-FANI: INSON UCHUN INNOVATSION G‘OYA VA YECHIMLAR

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I RESPUBLIKA ILMIY-AMALIY KONFERENSIYASI MATERIALLARI

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Isanova Feruza Tulqinovna

Annotatsiya
Mazkur to‘plamda “Yangi davr ilm-fani: inson uchun innovatsion g‘oya va yechimlar” mavzusidagi I Respublika ilmiy-amaliy konferensiyasi materiallari jamlangan. Nashrda respublikaning turli oliy ta’lim muassasalari, ilmiy markazlari va amaliyotchi mutaxassislari tomonidan tayyorlangan maqolalar o‘rin olgan bo‘lib, ular ijtimoiy-gumanitar, tabiiy, texnik va yuridik fanlarning dolzarb muammolari va ularning innovatsion yechimlariga bag‘ishlangan.
Ushbu nashr ilmiy izlanuvchilar, oliy ta’lim o‘qituvchilari, doktorantlar va soha mutaxassislari uchun foydali qo‘llanma bo‘lib xizmat qiladi.

Kalit so‘zlar: ilmiy-amaliy konferensiya, innovatsion yondashuv, zamonaviy fan, fanlararo integratsiya, ilmiy-tadqiqot, nazariya va amaliyot, ilmiy hamkorlik.

MUNDARIJA

FARMATSEVTIKA FANLARI

DETERMINATION OF THE ANTIMICROBIAL EFFECT OF DRIED RASPBERRY LEAVES

Shakirova Dinora Ne’matovna
Senior lecturer of the Department of Medical,
Biological Sciences and physical education of
the Tashkent Pharmaceutical Institute
Tashkent, Uzbekistan

Xabibullayeva Shoira Muydinjon qizi
Assistant of the “Department of Pharmacognosy”
of the Tashkent Pharmaceutical Institute
E-mail: khabibullayeva93@inbox.ru
Tel: +998 90 934 41 45
ORCID: 0009-0005-4141-1193
Tashkent, Uzbekistan

Abstract. The medicinal properties of plants are determined by their active ingredients. On their basis or by synthesis, the pharmaceutical industry produces effective medicinal plant preparations. Therefore, it is very important to look for alternative medicinal phytopreparations with a wide spectrum of antimicrobial activity. Antimicrobial effects of dried raspberry leaves have been found in this material, and investigations have shown bacteriostatic effects against dried raspberry leaf tincture Staphylococcus aureus[1].

Keywords: Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus, Basillus subtilis, Candida albicans, damlama, bakteriotsid, bakteriostatik.

QURITILGAN MALINA BARGLARINING ANTIMIKROB TA’SIRINI ANIQLASH

Shakirova Dinora Ne’matovna
Toshkent farmatsevtika instituti “Tibbiy, biologik
fanlar va jismoniy tarbiya” kafedrasi katta o‘qituvchisi
Toshkent, O‘zbekiston

Xabibullayeva Shoira Muyiddinjon qizi
Toshkent farmatsevtika instituti
“Farmakognoziya kafedras”i assistenti
Toshkent, O‘zbekiston

Annotatsiya. O‘simliklarning dorivor xususiyatlari ularning tarkibidagi faol moddalari bilan belgilanadi. Ular asosida yoki sintez qilish orqali farmatsevtika sanoati samarali dorivor o‘simliklar preparatlarini ishlab chiqaradi. Shu sababli, mikroblarga qarshi faollikning keng spektriga ega bo‘lgan muqobil dorivor fitopreparatlarni izlash juda muhim ahamiyatga ega. Ushbu materialda quritilgan malina barglarining mikroblarga qarshi ta’siri aniqlangan bo‘lib, tekshiruvlar natijasida quritilgan malina barglari damlamasi Staphylococcus aureus ga qarshi bakteriostatik ta’sir ko‘rsatdi[1].

Kalit so‘zlar: Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus, Basillus subtilis, Candida albicans, damlama, bakteriotsid, bakteriostatik.

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Methods and techniques: determining the antimicrobial effect of a sample of dried raspberry leaves was done by diffusing Agar into a solid nutrient medium against fungi of certain types of bacteria: Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus, Basillus subtilis and Candida albicans. (RF DF XX1,Part 1, p.194). All cultures of microorganisms were obtained from the collection of the Institute of Microbiology of the Academy of Sciences of the Republic of Uzbekistan[2,3,4].

Table 1.

Test for inoculate preparation-conditions for growing microorganisms

Microorganisms	Feed environment	Incubation temperature	Incubation time for plantings
Escherichia coli *Pseudomonas aeruginosa* *Staphylococcus aureus* *Basillussubtilis*	Feed broth (Himedia, Forage agari (Himedia,	37^0 C	24 clock
Candida albicans	Ozuqa buloni (Himedia), Saburo agar (Himedia),	30^0 C	24 clock

Preparation of inoculate: cultivated cultures of strains tested for bacteria were washed with a sterile 0.9% isotonic sodium chloride solution from a sloping agar surface and brought to 107 KOE/ml using the McFarland turbidity standard.

Preparation of a sample of dried raspberry leaves: a sample of dried raspberry leaves was prepared according to the instruction in 2 different ways:

Tincture. 5 tablespoons of dried and crushed raspberry leaves are placed in 0.5 liters of boiling water, infused for 2 hours and filtered.

Tea. A 200 ml capacity Teapot is filled with 1 tablespoon of dried raspberry leaves and boiling water. Tea is infused for 15 minutes and filtered.

Conducting experiments

Molten nutrient media from 25 ml of agar (Himedia) for bacteria and Saburo agari (Himedia) for fungi were poured into Petri cups placed on tables with a strictly horizontal surface. Petri cups were dried in a thermostat at a temperature of 37 C for 24 hours. The bacterial suspension was inoculated by immersing a sterile cotton swab in Agar in a test — microorganism suspension and removing the excess suspension by compressing it on the walls of the test tube. To obtain a uniform gauze, the inoculant was evenly distributed with barbed movements over the entire surface of the agar. A sterile metal cylinder with a diameter of 0.6 cm was used to pierce the holes. At the same volume as the holes in each cup, samples were placed under investigation of different concentrations from 100 MCL. The Petri Cups with the samples being examined were then refrigerated for 4 hours. These Petri cups were then incubated in a thermostat at 370c for bacteria and 300c for fungi for 24 hours. The experiment was conducted on March 2[5,6].

Results:

Table 2.

Antimicrobial activity of dried raspberry leaves

№	Test strains	Stop growth zone,	
		Tincture	Tea
1	*Escherichia coli*	0	0
2	*Pseudomonas aeruginosa*	0	0
3	*Staphylococcus aureus*	16 mm (bacteriostatic effect)	0
4	*Candida albicans*	0	0
5	*Basillus subtilis*	0	0

The antimicrobial effect is 2 different: bacteriocid and bacteriostatic. When bacteria die completely in bacteriocid exposure, in bacteriostatic exposure they stop growing. According to the results of the study, it was found that the tincture of dried raspberry leaves had a bacteriostatic effect against Staphylococcus aureus. The growth stop zone was set at 16 mm. Other test strains showed no antimicrobial activity of tincture and tea made from dried raspberry leaves.

Figure 1. Effect of dried raspberry leaves against Escherichia coli stammy

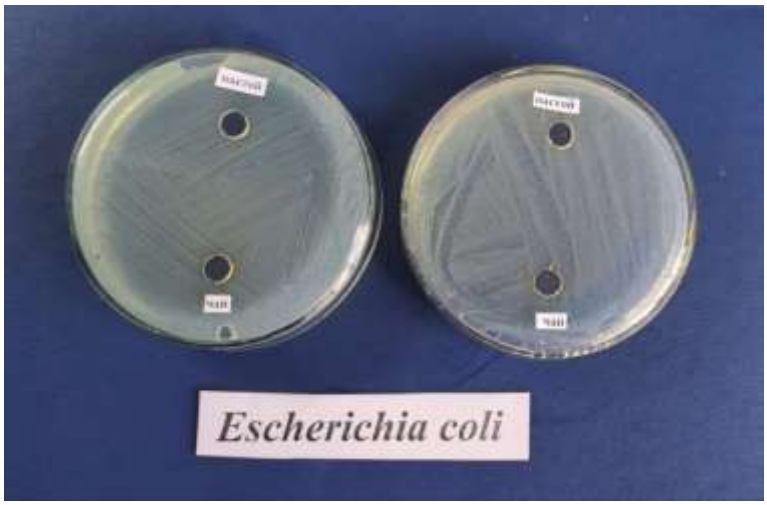

Figure 2. Effect of dried raspberry leaves against Pseudomonas aeruginosa stammy

Figure 3. Effect of dried raspberry leaves against basillus subtilis stammy

Figure 4. Effect of dried raspberry leaves against Candida albicans stammy

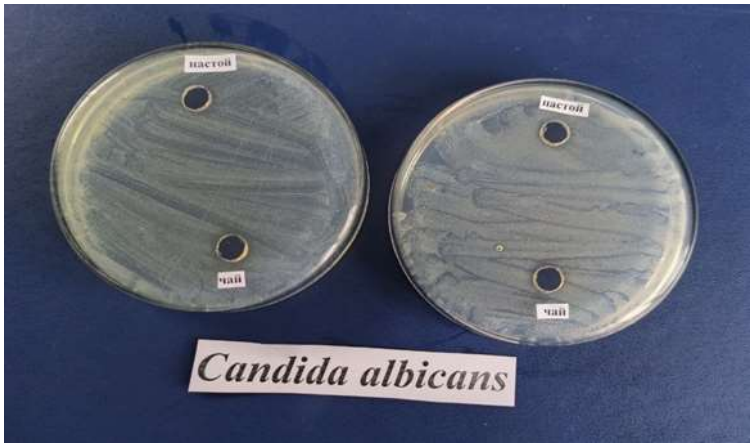

Figure 5a. Description of dried raspberries against burglary Staphylococcus aureus Tammin

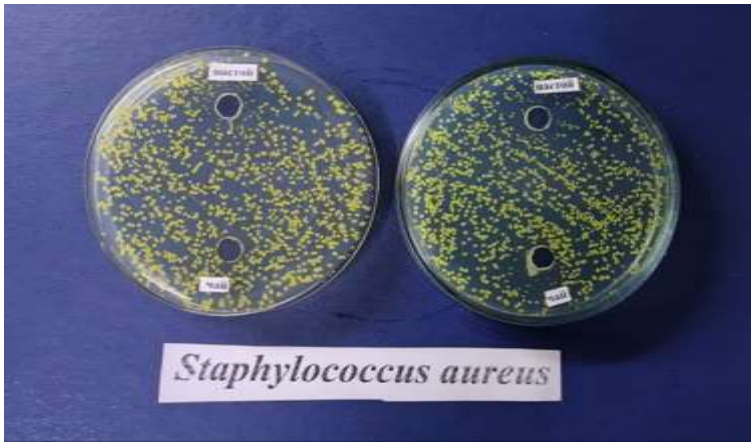

Figure 5b. Effect of dried raspberry leaves against Staphylococcus aureus stammy (enlarged image)

Conclusion: the dried raspberry leaf tincture sample has antimicrobial bacteriostatic activity compared to Staphylococcus aureus.

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