PHARMACOGNOSY

for 3rd year students 22 Public health 226 «Pharmacy, industrial parmacy», educational program «Pharmacy» Фм17(5,0д) англ 1, 2, 3, 4, 5, 6, 7, 8 groups

20.04 – 7, 8 groups

22.04 – 1, 2 group

23.04 – 3, 4 groups

24.04 – 5, 6 group

**LABORATORY CLASS. Topic:** **«Animal-derived raw material.»**

**OBJECTIVE.**

Know the raw materials of animal origin used in medicine.

**RELEVANSE**. Raw materials of animal origin are used in medicine to treat various diseases. This raw material is also used in apitherapy, hirudotherapy and the like.

**CONTROL QUESTIONS.**

1. List bee products and their pharmacological activity.
2. Describe the snake venom and its pharmacological activity.
3. Describe the leeches and their pharmacological activity.
4. Describe the freshwater sponge and its pharmacological activity.
5. Describe velvet antlers and their pharmacological activity.
6. Describe the use of shark raw material.
7. Describe the shilajeet and its pharmacological activity.
8. Describe the shellac and its pharmacological activity.
9. Describe the ambergris and its pharmacological activity.
10. Describe medical bile and blood, their use in medicine.

**TEST.**

1. Choose from the list of raw materials containing polypeptides:
2. Snake venom;
3. Bee bread;
4. Shellac.
5. Snake venoms are used in the treatment of:
6. epilepsy;
7. inflammation;
8. bacterial infections;
9. skin diseases;
10. bronchial asthma;
11. rheumatism;
12. hair loss;
13. diseases of the liver and biliary tract;
14. radiculitis;
15. chronic arthrosis, arthritis, bursitis.
16. With rickets and tuberculosis, it is recommended to eat as a nutrient:
17. Wool fat;
18. Blood;
19. Preserved medical bile;
20. Cod liver oil;
21. Purified honey.
22. Choose from a list of bee products:
23. *Lanolinum*;
24. *Mel depuratum*;
25. *Apitoxinum*;
26. *Spongilla*;
27. *Apis pollen*;
28. *Oleum*;
29. *Perga*;
30. *Amylum*;
31. *Apilacum*;
32. *Cera*;
33. *Propolis*;
34. *Cornibus arboreis*;
35. *Sanguis*;
36. *Cetaceum.*
37. Write Latin name for raw materials and make a logic chain: active compound – use in medicine.

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| Velvet antlers |
| a. Calcium phosphate, spermin, lecithin | 1. Tonic in fatigue |
| b. Fatty oils | 2. Choleretic |
| c. Squalene | 3. Antifungal  |

1. Write Latin name for raw materials and make a logic chain: active compound – use in medicine.

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| Wool fat (Lanolin) |
| a. Alkaloids | 1. Emollient |
| b. Cholesterol, agnosterol, lanosterol | 2. Laxative |
| c. Flavonoids | 3. Spasmolytic |

1. Write Latin name for raw materials and make a logic chain: active compound – use in medicine.

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| Spermaceti |
| a. Mixture of hexadecyl esters of fatty acids | 1. Anti-inflammatory |
| b. Ecicoprostanol | 2. Wound healing |
| c. Ambrein | 3. Harden ointments and cosmetic creams |

**PRACTICAL TASKS.**

Working through the literature to prepare for this topic.

Write Latin names of each plant, plant material and family and make a logic chain: A – medicinal plant; B – active compound; С– pharmacological activity.

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|  | **A** | **B** | **C** |
| 1. | POLLEN LOAD | Polypeptides (hirudin) | Improves the lipid metabolism |
| 2. | LEECHES | Spongin | Anti-inflammatory and antioxidant activity |
| 3. | SHARKS | Amino acids, mono- and polyunsaturated fatty acids phospholipids, essential oil, flavonoids, vitamins, macro- and microelements.  | Wound healing, antibacterial, anti-inflammatory |
| 4. | FRESHWATER SPONGE | Flavonoids and other polyphenols, enzymes, essential fatty acids. | Used in perfumery as a scent fixator since |
| 5. | AMBERGRIS | Phenolic compounds, bee wax, terpenes, lipids and waxes | Antibacterial, antiviral, antifungal, astringent, antipruritic |
| 6. | PROPOLIS | Vitamins А, Е, D, squalene, squalamine | Spasmolytic |
| 7. | SHILAJEET | Ambroxide, ambrein, epicoprostanol | Inflammation of the skin |

**LITERATURE TO PREPARE FOR THE LESSON.**

1. Pharmacognosy: textbook for higher school students / V.S. Kyslychenko, L.V. Upyr, Ya.V. Dyakonova, V.Yu. Kuznetsova, I.G. Zinchenko, O.A. Kyslychenko; ed. by V.S. Kyslychenko. – Kharkiv : NUPH: GoldenPages, 2011. – 552 p.; il.
2. Pharmacognosy: textbook for higher school students / V.S. Kyslychenko, L.V. Lenchyk, I.G. Gurieva et al.; ed. by V.S. Kyslychenko. – Kharkiv : NUPH: GoldenPages, 2019. – 584 p.
3. Tests KROK–2. Topic Alkaloids.