

Both blood donors and patients with no serum markers of viral hepatitis B and C may have such markers in the whitehead of a blood clot only. This is especially important for patients delivered to the emergency room of an infectious hospital who are to be diagnosed for an infectious pathology (acute respiratory infection, tonsillitis, erysipelas, bronchitis, pneumonia) and sent for an out-patient treatment or under the supervision of an infectious disease clinic.

It should be noted that in cases of severe disease, the cells in the whitehead may be completely absent (empty head) which indicated a poor prognosis. We pay particular attention to the emergence of a blood clot whitehead in patients with viral hepatitis B. The statistically processed results of a comparative evaluation of patients with acute viral hepatitis B of a medium severity, one group of which (50 identical persons) had got a whitehead and the other group (50 more identical persons) had got an empty whitehead, showed that the patients with whiteheads had had a lower level of leukocytosis, a higher transaminase activity, a higher level of fibrinogen and a lesser duration of a hospital stay.

Summing up our observation, we would like to point out that the research of blood clots, its permanent and variable components in particular, can serve as an essential addition to a comprehensive medical examination of a patient.

Useful properties and blood clots components

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Abstract: This article sums up some results of a research on possibilities of use of blood clots and its components for making additional therapeutic agents and making certain foods from animal blood.

Keywords: blood clot.

Blood clots in donors and patients are not researched in clinical practice. Animal blood clots are not researched in medicine and are not used in everyday life. According to our long-term observations, blood clots in humans, animals and birds are formed on the same principle and consist of two main parts – fibrin and the liquid part of the blood, mainly represented by the serum and the formed elements.

A blood clot may be separated into these two component parts mechanically. The ratio of fibrin and its physical condition is different for humans, small and large animals and birds. Human fibrin is isolated as short white threads, its wet weight amounts to 2-4 percent of the wet weight of the blood clot. Fibrin in domesticated pigs and horses is isolated as white, long and thick threads, it is close to human fibrin in its form and density. The blood clots in cows and bulls are very hard to separate, because the clot itself mainly consists of fibrin.

As the blood clot separates into two parts (fibrin and erythrocytes), we suggest using them separately. We also stress the importance of studying blood clots by laboratory methods to obtain additional information about the state of the body.

Human blood clots

In usual practice of blood transfusion stations the blood clots are decontaminated and recycled, but are not used. By separating blood clots into fibrin and the liquid part, we propose to use them as follows. After removal of fibrin the erythrocytes are in a free state. They are not adsorbed on the fibrin and are not connected to it chemically, but are entangled in the fibrin threads, which normally leads to the arrest of bleeding.

The erythrocyte suspension can be processed into biological glue. The resulting white mass of fibrin quickly dries, shrinks and becomes reddish-brown in color. In this case fibrin becomes stony

hard, but can be easily crushed and ground to a powder. After sterilization this fibrin glue can be applied to a wound on the skin where it solidifies into a dense crust. Fibrin is highly soluble in all alkaline solutions, but it does not dissolve in acids. When put in a separating funnel, in some solutions fibrin is clearly divided into several fractions with clear and smooth horizontal separation lines, which is probably due to the difference in the molecular weight of its parts.

Animal blood clots

Our research on the possibilities of use of animal blood clots is carried out on domestic pigs. Firstly, this animal is most often slaughtered, and secondly, the physical state of blood clots and their fibrin is the closest to those found in human blood. We propose that the liquid part of blood clots in domestic pigs should be used for making liquid hematogen of 3 grades (depending on the content of hemoglobin and plasma proteins). This liquid part of a blood clot can also be used for making a paste from hemoglobin and honey according to a special method put forward by us. Dried erythrocytes of a pig blood clot can be ground to a hematogen powder (the powder can also be obtained from processing whole blood clots), which is readily soluble in water and milk and can be used as a natural food additive after sterilization. The author of the method added the hematogen powder to the batter when cooking pancakes and fritters.

Blood clot fibrin can be processed into native fibrin powder, which can be safely applied to the surface of human skin ulcers. It does not cause rejection, solidifies as a crust and penetrates into the tissue, stimulating epithelialization. Blood clot fibrin of pigs can also be used for making fibrin film and fibrin paste, made from mixing the fibrin powder with common solvents or disinfectant non-antibiotic chemicals.

Furthermore, blood clot fibrin of pigs (as well as of other domestic animals) is usable for making certain foods. Thus, the author of this article used blood clot fibrin for cooking genuine blood steaks and ravioli mincemeat, which has been presented at an international trading fair in Blagoveschensk. Erythrocytes from a pig's blood can be used as yeast for preparing alcoholic beverages or distilled into potable spirit.

These are some of the results of our ongoing research on blood clot. We hope to find understanding among our foreign colleagues and gain their support.

The change of echo structure of “mother-chorion” system in women with latent course and reactivation of chronic cytomegalovirus infection at the threat of miscarriage

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Summary: The study of ultrasonic picture of “uterine-chorion” system in 98 women with the threat of miscarriage in I trimester of pregnancy at the latent course and reactivation of chronic cytomegalovirus infection against latent chronic herpes virus infection was done. It was found out that the women with the reactivation of chronic cytomegalovirus infection (IgM antibodies to cytomegalovirus 1:200 and IgG antibody titer to cytomegalovirus 1:200-1:800) in comparison with the women who had a latent course of chronic cytomegalovirus infection with IgG antibody titer to cytomegalovirus 1:400-1:400 had the increase of visualization frequency of chorion thickening in 4,4 times ($p < 0.05$), the thinning of chorion in 5,9 times ($p < 0.05$) and of retrochorionic hematoma in 5,4 times ($p < 0.05$). At reactivation of chronic cytomegalovirus infection (IgM antibodies to cytomegalovirus 1:200 and the growth of IgG antibodies to cytomegalovirus 1:200-1:800) in comparison with the reactivation of chronic cytomegalovirus infection (IgM to cytomegalovirus and