

Immunogystochemical (Sd-138 Marker) Results Of Pathomorphological Changes In The Uterus When Drinking Energy Drinks Chronically Under Experimental Conditions.

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Abstract. In this study, the experimental method examined the morphological changes that occur in uterine tissue and glands when white non-breeding rats are ingested in chronic energy drinks in an immunogystochemical manner. From micropreparations made from uterine tissue structures isolated from white non-breeding bats, immunogystochemical testing was performed using the CD-138 marker to produce data on the results obtained based on the degree of expression of the same marker.

Keywords: CD-138 marker, plasmatic cells, immunogystochemistry, chronic endometritis, uterus.

Research objective: Determination of the expression of the marker CD-138 in uterine tissue when chronic ingestion of energy drinks.

Material and methods: To carry out the study, 18 white non-breeding bats of the female sex were isolated and ingested energy drinks. For immunogystochemical study of tissue samples isolated from the uterus of a white non-breeding squid, 18 pieces were taken in a glass window and prepared histological preparations were studied under a microscope and their areas of alteration were isolated. After the tissue fragments obtained for immunogystochemical Dyeing were cut using a rotor Microtome 4-6 μm thick, the object was placed in the window and the top covering L-lysine shut-off was closed with a glass. The resulting tissue was prepared using the method of dehydration and paraffinization of incisions using the avidin-biotin immunoperoxidase method. Tempering antigens was performed under pressure through a 0.01 m citrate buffer RN 6.0 li solution. To block endogenous peroxidase, the drug was soaked in a 3% solution of peroxide hydrogen for 10 minutes. The drug was washed with a tris-NaCl-buffer RN 7.6 li solution for washing, followed by an expression method with a CD-138 marker to detect expression and plasmatic cells, and then dab+ chromogenic. The stained preparations were examined using a trinocular microscope. To assess immunogystochemical results, QuPhat 4.4.0 was studied in a morphometric field of observation, enlarged 200-400 times. The positively expressed cells in the isolated field were calculated in percentages relative to the Ja'mi cells in the total field. Expression levels were assessed as low (level expression) at 20%, medium (level expression) at 20-60%, and high (level expression) at 60%.

Main part: CD-138 (sindekan-1) is a representative of proteoglycans in this sindekan family. V is expressed in the membranes of plasmatic cells during the final stages of lymphocyte stratification. Sindekan-1 is involved in vascularization-free processes by having the ability to bind to the primary growth factor of fibroblasts, serving a function such as collagen, fibronectin, and thrombospondin receptor.[1] Lymphocytic plasmocytes are immunocomponent cells belonging to the lifocyte line that produce antibodies in the human body. These cells are formed by immunopoiesis. Lymphocyte plasmocyte cells are involved in the implementation of an immune response, i.e. acquired immunity, in an adaptive form. Antibodies produced by plasmocytes are highly specific (specific). For example, several thousand antibodies can be produced from each plasmocyte cell at the same time. These cells are involved in the implementation of a humoral immune response, that is, after initially interacting with a foreign body, the V cells study the M'lumot about this foreign body and later these cells become memory cells. Antithanases are produced based on the information stored by memory cells when this foreign substance recedes into the body[5].

Plasmtic cells are round and oval in shape, with an average diameter of 15-20 μm . When seen under a light microscope, the nucleus is well separated, and heterochromothin can be seen in it, separated into fragments, and the nucleus becomes relatively large and surrounded by clear cytoplasm[2]. The released plasmatic cells lose the main molecules located in their membrane. The V-cell receptor and the cell's primary interpenetration complex, the primary membrane marker of V cells, is syndecan 1 (CD-138) and ensures that plasmocyte cells

interact with stromal cells. Lymphocytic plasmotic cells are often located in the organs of the peripheral immune system, that is, in the spleen, lymph nodes, the worm-like tumor of the blind intestine, in the pyrogov-Valdeiera lymphatic ring and in the lymphoid tissue of the mucous membrane of the cavity organs[7].

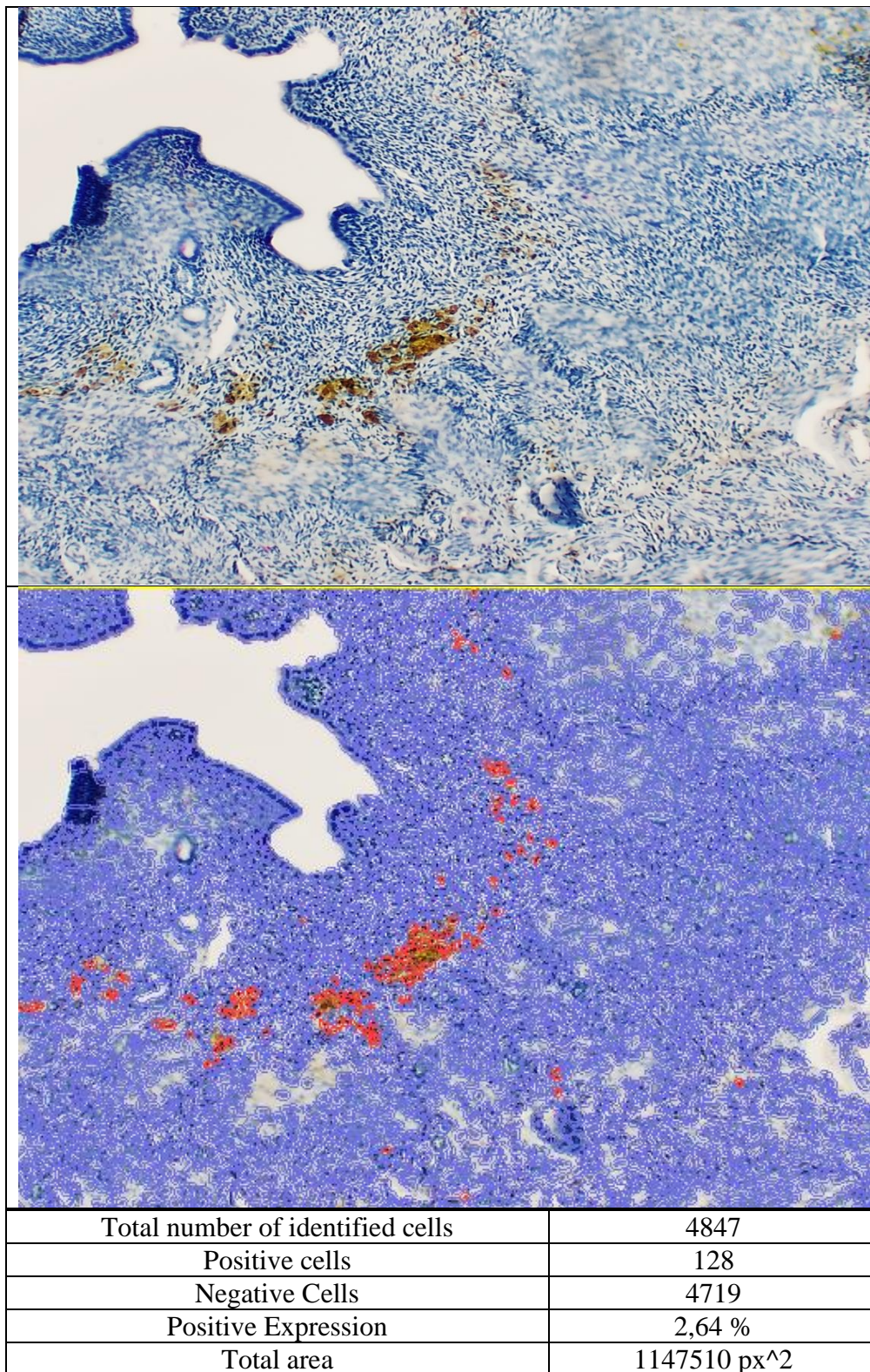


Figure 1 expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks.

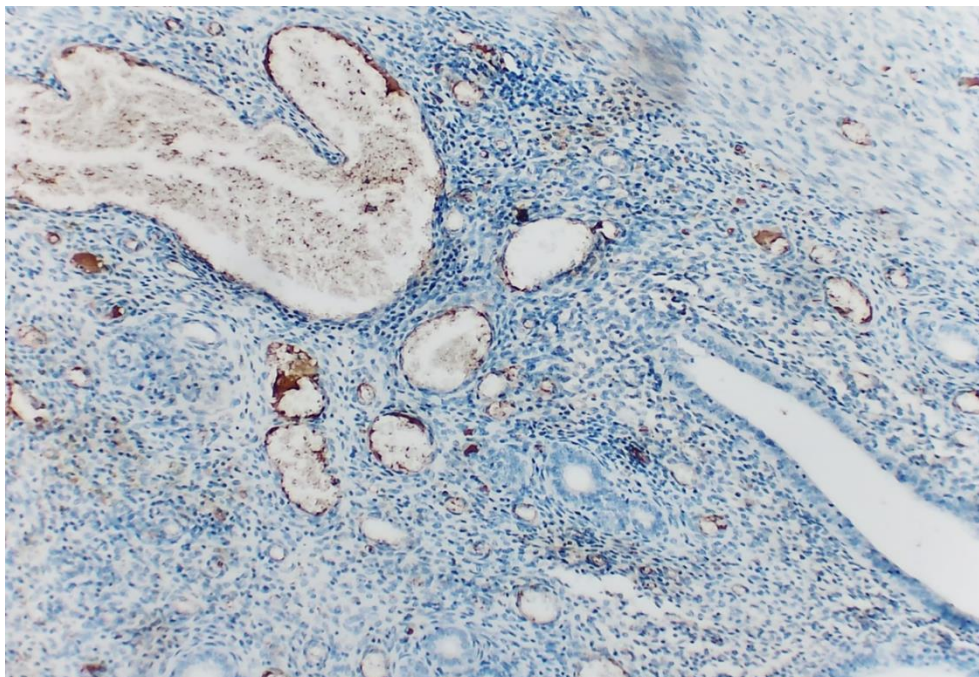


Figure 2 expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks. Positive expression 4.08 %

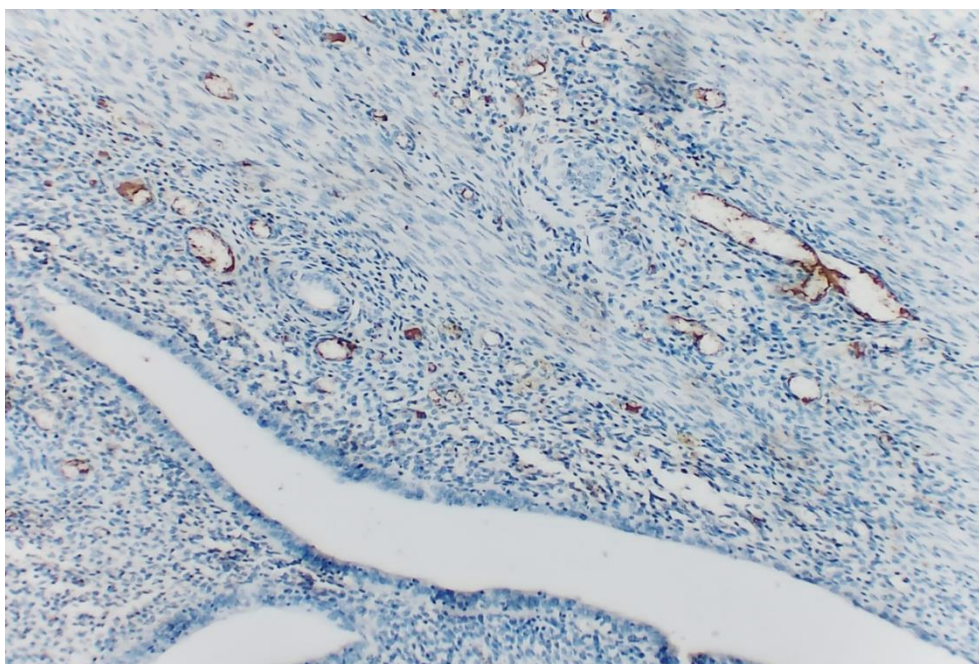


Figure 3 expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks. Positive expression at 1.7%.

CD-138-marker is also detected in plasmatic cells located in the endometrial floor of the uterus and serves as a special indicator of chronic endometritis.

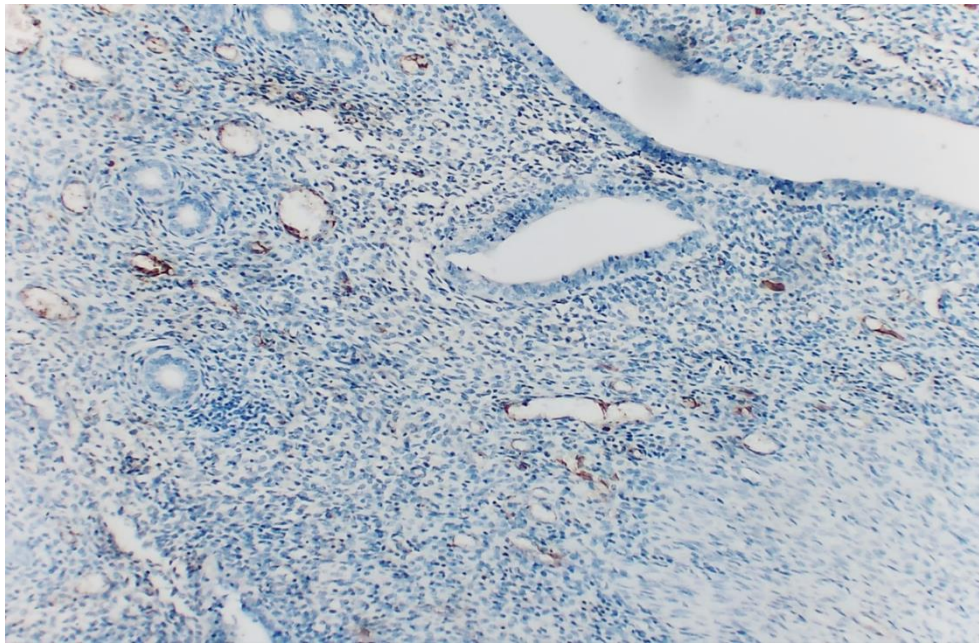


Figure 4 expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks. Positive expression at 0.857%.

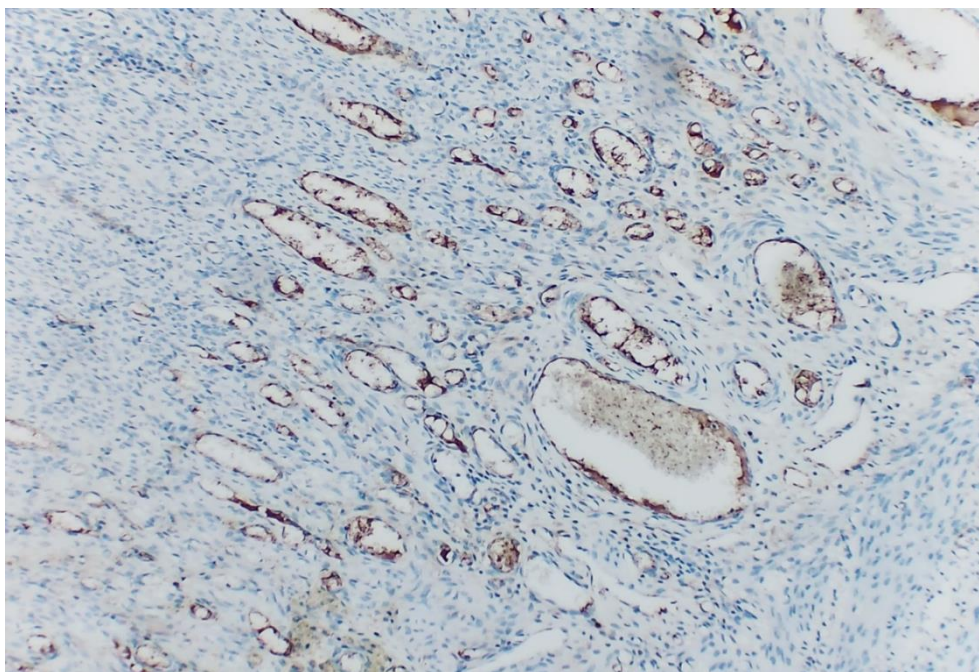


Figure 5. Expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks. Positive expression at 11.158%.

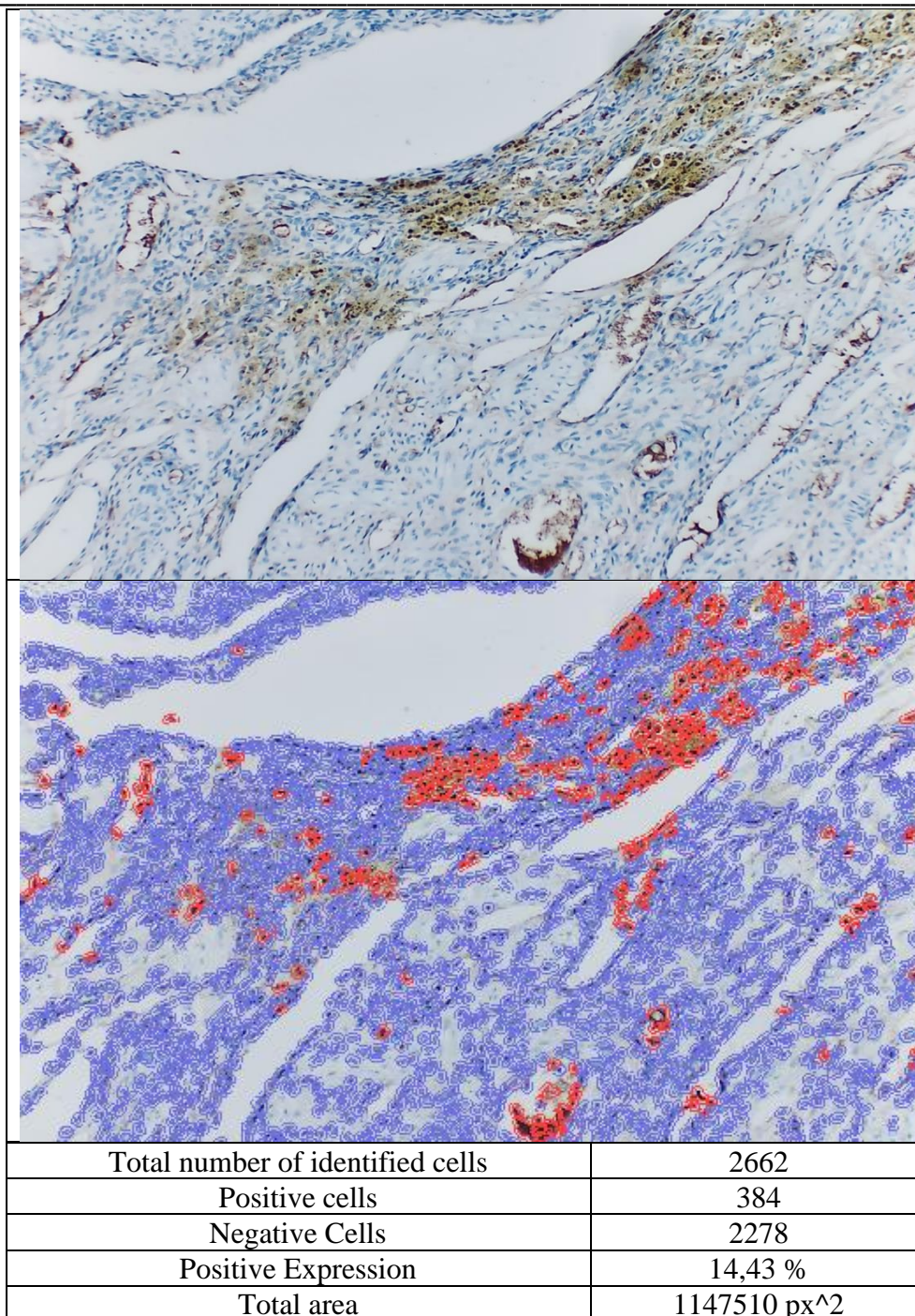


Figure 6. Expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks.

Chronic endometritis is inflammation of the inner lining of the uterus. Chronic endometritis is a prolonged inflammation of the strunca that causes structural morphological changes to the endometrial floor[6]. Chronic endometritis is special (specific) and nospecific. No pathogenic microflora is detected in the uterus in the nospesifik if various infections and parasites enter the specialty (specific). This process can also occur in bacterial vaginosis, when intrauterine agents are used, and when hormonal contraceptives are used. Similar processes lead to the activation of cells of the immune system, and these carry out an inflammatory process in the uterus. Based on this, this type of chronic endometritis is introduced into autoimmune pathologies, the reason is that the cells of the immune system work against their cells and tissue. The clinical sign of this disease is manifested in different manifestations, and it occurs as a result of the causes of the disease, that is,

infection factors, various manipulations in the uterine cavity, Irradiations, obstetric and postpartum processes, early sex life, sexually transmitted diseases and other causes.

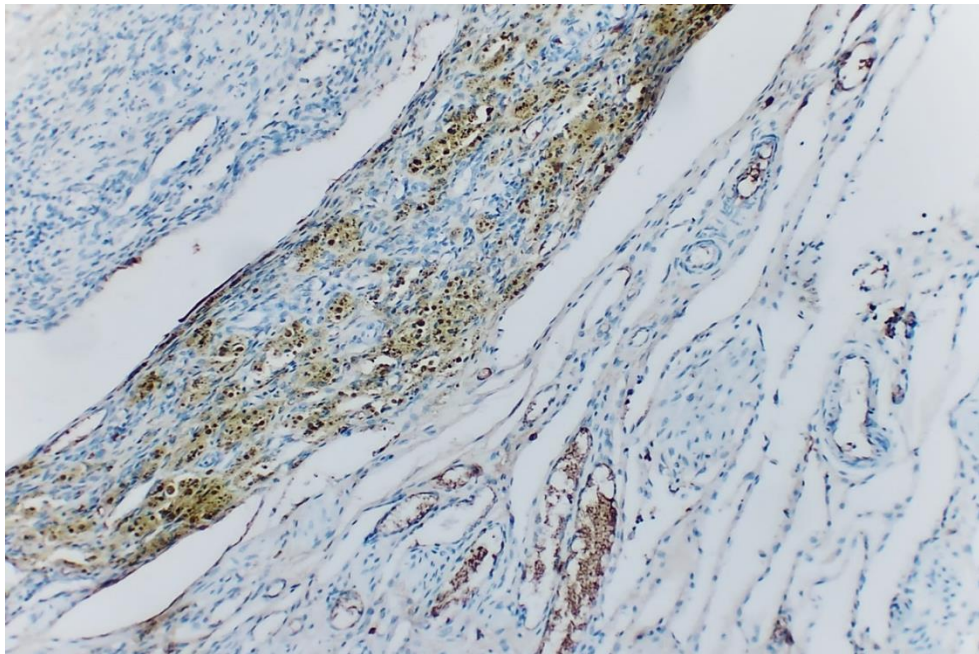


Figure 7. Expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks. Positive expression at 21.184%.

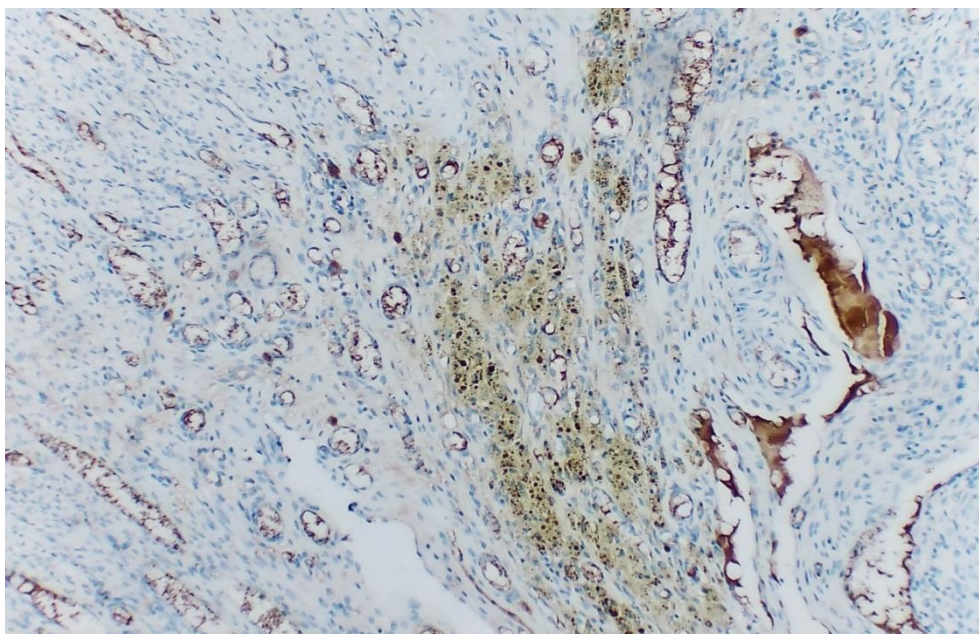


Figure 8. Expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks. Positive expression at 21.4%.

Information about the expression of the marker CD-138 by immunogystochemical means is considered important in the diagnosis of chronic endometritis. According to some data, the finding of this marker on the uterine endometrial floor is assessed as << gold standard >> of detection of chronic endometritis[10].

Immunogystochemical results were studied with the marker CD-138 of micropreparations isolated from the uterus of 18 non-white rats who drank chronic energy drinks isolated for the study.

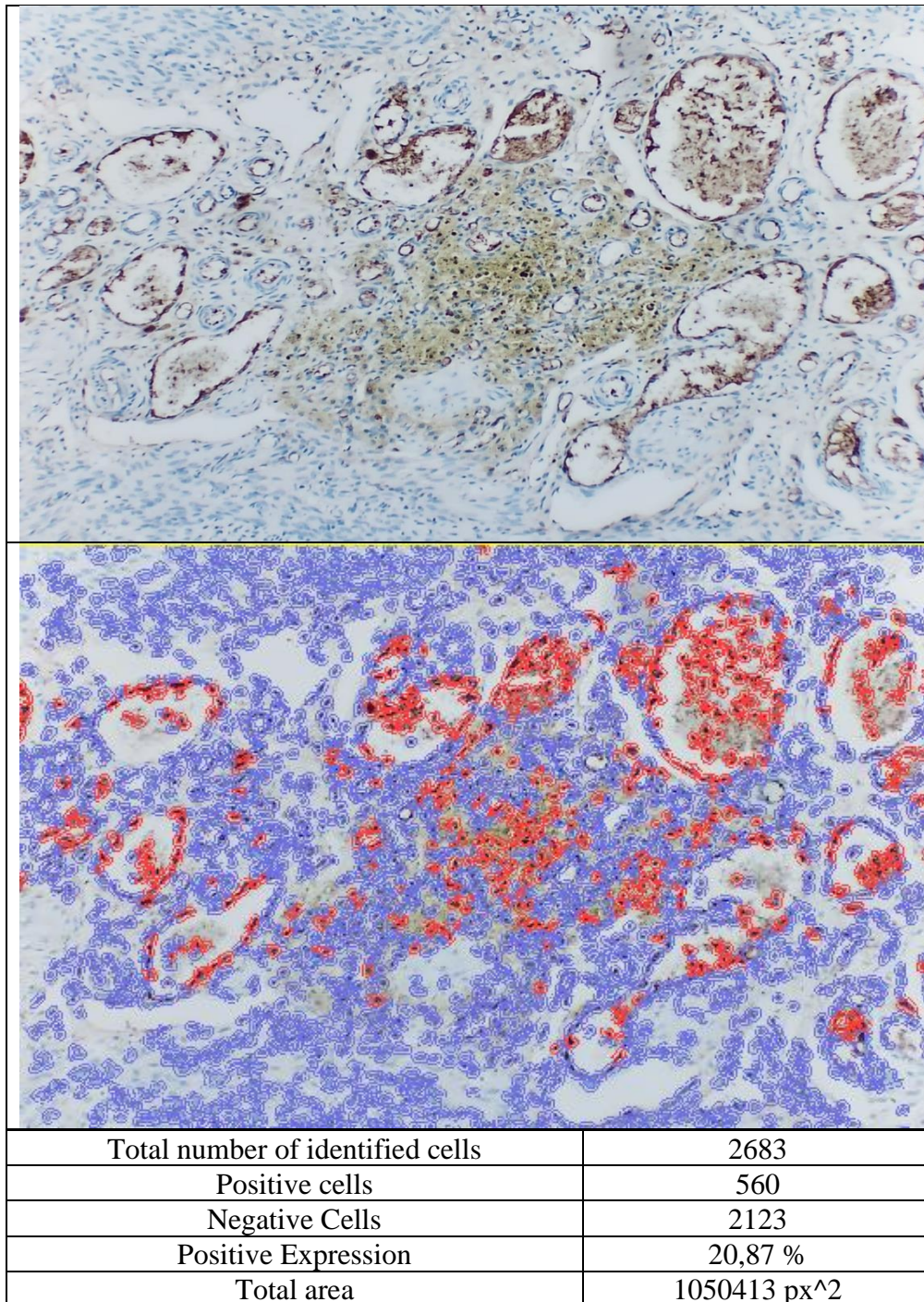


Figure 9. Expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks.

In the results obtained, the expression of the marker in the stroma floor of the uterus was observed relatively more. Expression was found to varying degrees in almost all of the material obtained, and they were expressed by up to 2% depending on the degree of expression-7, which was 38.8% in percentages (see Figure 5.6.7, 10), while the remaining 21% expressed were 6 or 33.3% in percentages (see Figure 2.4.8). The remaining 11-14% expressed were 22.3% in 4 (See Figure 3.9).

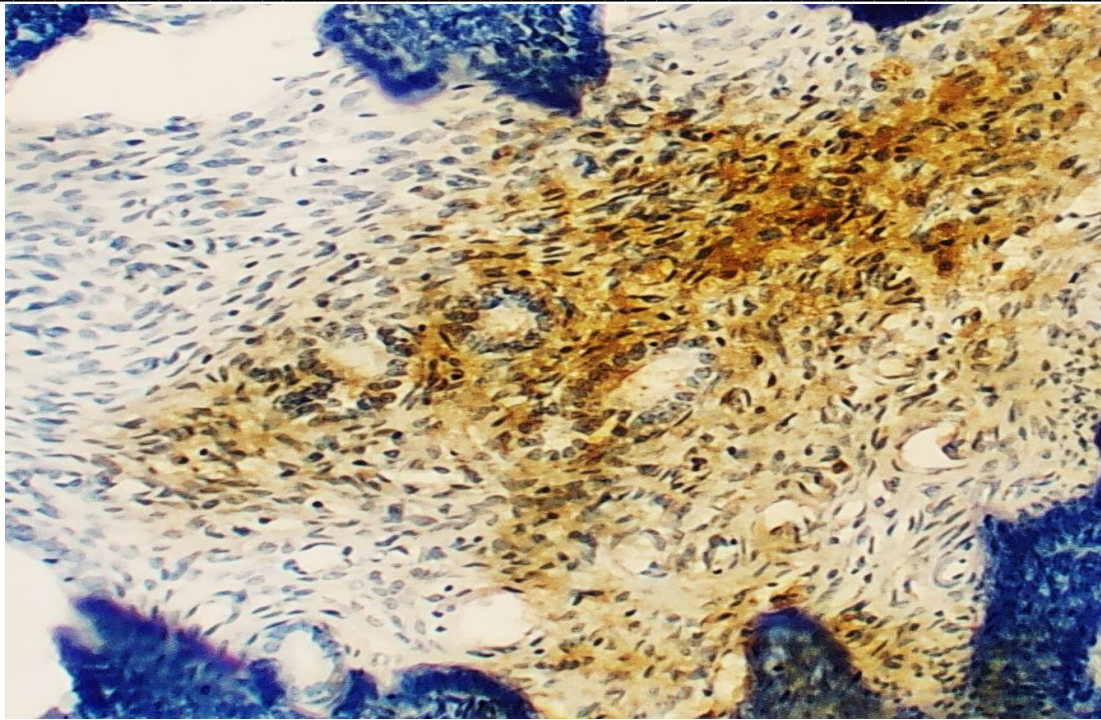


Figure 10. Expression of the marker immunogystochemical CD-138 in the tissue of the uterus of a white non-breeding rat who drank experimental energy drinks. Positive expression at 41.5%.

Conclusion:

1. Experimentally, low levels of immunogystochemical CD-138 marker expression were found in tissues from the uterus of non-white non-breeding rats that had been chronically drinking energy drinks.
2. Expression was more observed in the stroma of uterine tissue.
3. Chronic energy drink use as a risk factor in women has been demonstrated on the basis of immunogystochemical data calling for chronic endometritis disease.

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