So a difference in the standing crop of below-ground biomass associated with seasonal and year –to-year dynamics may be very large. A combination of changes in biomass caused by altered grazing regime as well as seasonal and year- to- year dynamics makes an analyze of a below-ground biomass response to a change in grazing impact difficult.

**Conclusions**

Changes in the biomass structure of grasslands under different grazing intensity can be expressed as ratios. With increasing grazing impact entering of the vegetable leavings to the soil and the storage of the humus, carbon decrease. Results for the moderately grazed site did not agree entirely with those obtained from dry steppes. The below-ground biomass values were highest at the moderately grazed site although differences with the overgrazed site were not significant.

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## ADHESIOGENESIS MODELLING IN A CASE OF SURGICAL CAUSED HORMONAL INSUFFICIENCY

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Last years , the quantity of surgically treated gynaecological diseases, used to be progressively increased. The most frequent surgical intervention is the total or subtotal hysterectomy with\ or without adnexa ( in occasion of myoma and adenomyosis).

The percent of this operations is about 38% in Russia, 25% in Great Britain, 36% in USA, 35% in Sweden. The middle age of such a surgically treated women is about 40.5 years old. Its about 76.8% of hysterectomy with ovariectomy were realized to a women of 40-45 years old in Great Britain. In USA the quantity of hysterectomy is about 60000 per year, in 60% of cases accompanied with bilateral ovariectomy.

In fact, the problem of adhesiogenesis is especially actual in operative gynaecology, because in the most cases, gynaecological surgery may attend a high risk of peritoneal adhesions forming, expanding beyond the bounds of pelvis. The rate of morphogenesis pelvic and peritoneal adhesions after obstetrical and gynaecological surgery is about 60-100%. For example, 92.6% - after supravaginal amputation of uterus, 95% - after uterine extirpation.

Postoperative adhesions has a great negative influence on a patients health condition , causes an intestinal obstruction, chronic pelvic pain syndrome, different surgical complications as an injuring of viscera and etc.

**Main aim**: An assessment of adhesiogenesis level under condition of hormonal insufficiency in the dynamics of a postoperative injury in the experiment.

**Materials and Methods**

The new experimental method of Adhesiogenesis modelling in a case of hormonal insufficiency was designed to determine the level of adhesive process.This model is reproducible on different kind of experimental animals. It were 30 nubilous female rats (Wistar Line)used in experiment. Their middle age was about 3 month, the weight was near 200 -350 grams. The method was realized by comparison of results of simultaneously provided experiments(a standard operational injury, uterine amputation without ovaries, uterine amputation with ovaries )were assessed under the experiment.

The level of adhesiogenesis in absolute numbers (TVA –total volume of adhesions) was assessed by us on the grounds of received macromorphometric data ( length, diameter, thickness, area of adhesions) and devised formula. It is possible to determine and objectively compare the process of adhesiogenesis in different groups.

In accord of earliest classification, all adhesions that were founded were devided on chordal, filiform, arachnoidal, scarious or planar morphological types. Each adhesion was described with a special parameters : diameter and length of a chordal and filiform adhesions, thickness and the area of scarious and planar adhesions.

Taking into account of the chordal and filiform adhesions middle diameter is about 5 and 1.5mm and scarious adhesion thickness is near 1mm, it is enough to define its length( for chordal and filiform adhesions) or area ( for scarious adhesions ) to identify their volume.

The formula for calculating of the TVA (Total Volume of Adhesions) was:

$$V_{adh} = \Sigma l_{chord.}\pi(d_{chord}/2)^2 + \Sigma l_{filif.}\pi(d_{filif.}/2)^2 + + \Sigma l_{arachn.}\pi(d_{arachn.}/2)^2 + \Sigma S_{scar.}h_{scar.} + \Sigma S_{плоск.}h_{planar.},$$

V - volume, l – adhesive length, d – diameter of adhesive transversal section, S – area of adhesion, h – thickness of adhesion, $\pi = 3,14$.

**Results**

The data was processed by statistical calculation of arithmetical mean.

In the first group ( with a standard operational injury ) TVA was 0.45 $cm^{3.}$ In the second group (amputation of the uterus without ovaries) TVA was 0.73 $cm^{3.}$ In the third group (amputation of the uterus with ovaries ) TVA was 0,92 $cm^{3}$.

**Resume**

TVA depends of the operational injury, so the widening of operational injury volume in a condition of attendant postoperational hormonal insufficiency activates the elevation the TVA.

The data was obtained by experiment allows to suppose the possible importance of such a clinical researches, including the reasonability of substitutive hormonal treatment of the patients with surgical menopause.

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