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The Epizootological Characteristics of Location of Malignant Anthrax and Work on their Differential Anti-epizootic Measures

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The observations an analysis of statistics on the malignant anthrax sickness between domesticated animals, show that its appearance in separate localities does not have the same character.

For a successful combat of this infection it is necessary to distinguish and classify all the cases of it. A question that the infection is directly connected with soil conditions seems to be completely established.

After the investigation consisting from the study of archives and operative documents for the period 1982-1910 in one of the localities of the Middle Region of U.S.S.R., we believe we can recognize four separate groups of localities in connection with malignant anthrax.

1) Localities where the malignant anthrax appears yearly or in short intervals. Such localities amount to 4%.

2) Periodically recidivous localities where the sickness appears periodically in 5-6-6 or more years. These localities constitute 41.2%.

3) Sporadic localities in which malignant anthrax happened only once; the number of such cases registers 43%.

4) Extinguished localities in which malignant anthrax does not exist any more. The percentage of such localities is 11.8%.

We can remark here that it was found, that in between these, now extinguished localities, there were cases of the malignant anthrax striking human beings.

We took this rather long period for a statistics on this question, because in our opinion, this period gives us the realistic informations.

Considering the historical facts and a temporary state of things for the last few years (not more than ten) we think that the mentioned classification is necessary for the successful combat of the malignant anthrax. We have considered the ten years period because the periodical character of the sickness does not exceed 5-6 years, and consequently this period is sufficient for the planning of anti-epizootic measures.

We can divide the anti-epizootic measures on five categories:
I. **Stationary active localities.**

The antiepizootic measures should be:

1. Exposure of all infected places (active and localized sources) and having their record on the maps and passports.
2. Careful disinfecting measures in newly infected places.
3. A general 100% inoculation of all domesticated animals (in some cases including pigs.)
4. A construction of Baktary pits (if a burning of malignant anthrax carcasses is impossible).
5. A realization of measures preventing a spread of the disease because of furage.
6. A development of artificial pastures.

II. **Periodically recidiveous localities.**

The measures should be generally the same as in previously discussed case, but a study with the purpose of exposure active sources should be more through in order to prevent such localities to become stationary active ones.

III. **Sporadic localities.**

Localities, where a case of the malignant anthrax was registered only once during the last decade; such cases can be resulted in:

a) A single entering of the infection from outside.

b) An erroneous registration of sickness cases in past years.

c) An erroneous diagnosis.

Such localities require a careful observation, without active inoculations, but in the case of reappearing sickness the full measures described above have to be taken.

IV. **Extinguishing on extinguished localities**

Such cases could be explained by:

a) A possibility of natural selfextinguishing of the infection, selfsterilization of a soil.

b) A possibility of exact localization of infected places.

c) A limited quantity of infected spots, which do not come in contact with animals.
In such localities the measures, in our opinion, should be:

1) **The usage of artificial pastures, which will secure an established absence of malignant authrax.**

2) **A careful diagnosis of infected places with the prohibition of using them as pastures or planting fields.**

V **New localities.**

Localities in which the malignant authrax is registered for the first time. The measures in such localities should be:

1) **To find out a source of infection.**

2) **To secure a burning of all carcasses in order to prevent further spread of the disease.**

3) **To procure a thorough disinfection.**

4) **To procure inoculation in the limits depending on a spread of the infection and degree of dissemination.**

These new localities require a very attentive epizootologic analysis and measures directed to localization and "liquidation" of newly appeared sources.