Anthrax is a rare, acute bacterial disease that spreads to animals and humans. The bacterium is caused by Bacillus anthracis, which spreads as a spore in the soil and even remains there for several decades. Anthrax is especially common in herbivores. After grazing on large-grained grass, animals receive wounds in the gastrointestinal tract, allowing bacteria to be placed in the wound, damaging the host organism and causing death. There are three ways of spreading the disease: contagious, alimentary, and aspiration, the first of which is promoted by blood-sucking insects.

Impact of Soil on Anthrax

The soil is a reservoir of Anthrax spores, as evidenced by numerous studies. The most favourable places for the Anthrax bacterium are black soil, brown soil, 26–18, 81%.

Methods and Materials

We carefully analysed 1,664 cases of Anthrax in humans and 621 cases in animals, up to 1,430 locations in soil (animal burial grounds, slaughterhouses, BP roads, construction sites, etc.) recorded in Georgia. The data are taken from the National Centre for Disease Control and Public Health of Georgia, which scientists have researched for over 70 years.

Results

The soil is a reservoir of Anthrax spores, as evidenced by numerous studies. The most favourable places for the Anthrax bacterium are black soil, brown soil, and alluvial soil, which the river brings and deposits. Humus also contributes to the spread of spores (4% or more than 4%). These soils are: red soils, humus-carbonate soils, ash soils, black soils, especially on arable lands, and mountain-meadow cord soils with the highest humus content. Anthrax is especially common in herbivores. After grazing on large-grained grass, animals receive wounds in the gastrointestinal tract, allowing bacteria to be placed in the wound, damaging the host organism and causing death. There are three ways of spreading the disease: contagious, alimentary, and aspiration, the first of which is promoted by blood-sucking insects. The spread of Anthrax is facilitated by the movement of cattle on the roads. Seasonally, these trails operate from July to October. At this time, the surrounding areas, settlements, and populations are threatened as Anthrax bacilli are excreted in the urine, faeces, blood, and other biological fluids of infected animals. Animal-eating insects that feed on the carcasses of infected animals may also play the role of mechanical carriers in causing and spreading the disease. When exposed to free oxygen, environmental conditions affect the Anthrax bacillus, which produces dormant (non-plant) spores, is resistant to environmental conditions, and maintains infectivity and viability in the upper layers of the soil for hundreds of years. Diseases from environmental conditions, and maintains infectivity and viability in the upper layers of the soil for hundreds of years. Diseases from

Conclusion

- During high temperatures, the spread of Anthrax is intense in the plains. The risk of Anthrax spread decreases with increasing altitude. Irrigation with untreated water also contributes to the spread of Anthrax, in which the bacillus enters the upper layers of the soil and is transferred to pastures;
- The spread of Anthrax spores is also facilitated by the ways of transporting livestock, during which the animals spread the Anthrax bacilli or leave these bacteria in the soil for hundreds of years.
- The soil and even remains there for several decades. Anthrax is especially common in herbivores. After grazing on large-grained grass, animals receive wounds in the gastrointestinal tract, allowing bacteria to be placed in the wound, damaging the host organism and causing death. There are three ways of spreading the disease: contagious, alimentary, and aspiration, the first of which is promoted by blood-sucking insects.

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