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# Poland's Epizootic Rinderpest of 1920-1923

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#### **Abstract**

The epizootic Rinderpest disease affected the Polish territory from the years of 1920 - 1923. It was an extremely difficult experience for Polish farmers because of its significant damage to the cattle population. This epidemic produced a great challenge for doctors of veterinary medicine. The disease forced ministerial authorities and veterinarians to take effective measures to eliminate the plague. Preserved historical records leave no doubt that the fight against rinderpest required courageous decisions and sacrifices which were not always understood by farmers, who refrained from taking any action before finally destroying their animals infected with the disease. This article sheds light on the hitherto poorly known issues surrounding the fight against rinderpest in the Second Republic of Poland.

Keywords: Epizootic; Livestock; Agriculture

The First World War wreaked great havoc upon livestock in Poland with much cattle and many breeding barns being destroyed [1]. Towards the end of the fighting in 1918 the health situation improved slightly in Central and Eastern Europe, though animal diseases such as: pulmonary cattle plague, glanders, scabies, anthrax, foot and mouth disease, tuberculosis, dourine, erysipelas, swine fever, rabies and poultry cholera were still rampant [2]. A difficult challenge for the veterinary service was how to fight the rapidly expanding epizootic rinderpest plague. Farmers have struggled with the problem of rinderpest since ancient times. This dreadful disease originated in Central Asia and around the Caspian Sea. Historical sources report that this cattle plague spread to the west and south of Europe during the so-called Migration at the end of the Middle Ages. Rinderpest wreaked great havoc among animals during the Mongol invasion of Europe in the 13th century, during the Thirty Years War of the 17th century as well as during the Napoleonic wars [3].

Toward the end of the First World War, rinderpest spread with a vengeance in Russia, especially on the Russian border between Persia and Turkey [4]. In 1920, this dangerous and relatively unknown disease occurred in several Polish regions. It was known that rinderpest is a disease of ruminants. Warsaw University professor John Gordziałkowski estimated that rinderpest is the most "dangerous disease of cattle, its course is acute, it disseminates rapidly and is characterized by inflammation and gangrene of the mucous membranes of the entire gastrointestinal tract. The disease only affects ruminats most often horned cattle and to a lesser degree sheep, goats, gazelles, hinds and deer" [5]. Its severe spread followed the invasion of Polish territory by Bolshevik forces. At that time, veterinary inspector, Marian Haydukiewicz wrote: "The rinderpest plague that hit our state last year was not a surprise. We have learned from the experience of past centuries that rinderpest is frequently brought by the peoples of the East making raids on Western countries. We were expecting this epizootic from the beginning of the World War, getting as ready as possible to fight it. As long as Russia's rule of law was in force over its vast lands our state of emergency was unnecessary. Following the Bolshevik Revolution, rinderpest which had until then remained on the steppe

of Asiatic Russia spread like a large wave throughout the Russian state and threatened its neighboring countries" [6]. The natural conditions and the war did not allow for effective protection of state borders against importation of diseased animals.

During this rinderpest outbreak (1920 - 1923) Haydukiewicz recorded that within 1,146 towns and 8,540 farms; 21,840 animals fell ill, 9,160 died, 6,276 were killed and 6,404 animals healed [2]. These statistics are not complete as not all outbreaks were officially reported [7]. Polish farmers had no previous contact with rinderpest and their knowledge about the plague was negligible. Jagiellonian University professor Julian Smith wrote in the Farmer Circle Guide: "We have become accustomed, at least we in the Lesser Poland region, to think of rinderpest as something that was terrible long ago and that actually there is no danger for us. Old people who have seen rinderpest spoke of how the animals dropped dead because of it, but young people did not know much about it - only that such evil had usually come from the east" [8]. The press of that period reported that the general population "was not aware of the horrors of the situation and no one wrote about the outbreak of plague: The sick cattle were hidden and what is worse, the skins and meat of sick animals was marketed. This practice resulted in an outbreak which quickly spread over large spaces" [9] affecting the regions of Białystok, Lublin, Warsaw and former Eastern Galicia.

The fight against this epizootic disease was led by the Supreme Commission for the Eradication of Rinderpest. The priority was to secure the eastern border through which infectious animals from Belarus, Ukraine and Russia entered. Along this border, veterinary doctors and paramedics were deployed with the task of keeping record of any cattle within 15 - 20 kilometers from the border as well as quarantining and vaccinating them. It was also the duty of the veterinary services to test and de-contaminate animal products imported into Poland from the eastern border [2]. A military cordon was formed with the goal of halting progress of the disease by creating protective zones where the disease had not yet spread [9].

In the summer of 1923 a decree was issued by the Minister of Agriculture and Commerce together with the Ministries of Internal Affairs, Railways, Industry, Trade and Treasury, which regulated matters related to the restriction of trade in animals and raw animal products as well as oversaw the importation of bulk feed coming from Russia, Belarus, Ukraine and Lithuania. The state authorities instituted a ban on the import and transport or transit across Polish territory, of cattle and other ruminants, as well as a ban on the import of raw animal products, roughage and grooming equipment. Polish imports into and transit through its territory of horses, donkeys, mules and pigs destined for slaughter were allowed to live as well as poultry and poultry meat were allowed. Strict adherence to sanitary and veterinary conditions was recommended [10]. Those that faced the most risk were the cattle breeders on Poland's eastern borderlands where the situation required strict border security to prevent the importation of any sick animals or disease. At the same time these actions created work opportunities for veterinarians [11]. It was forbidden to organize exhibitions and auctions of cattle or to pasture animals on common ground or have joint watering [12]. In September 1920 the Minister of Agriculture and state assets, Juliusz Poniatowski, issued a proclamation appealing to farmers to "not allow strangers and especially any merchants, butchers, leather craftsman, beggars, etc. - people who due to their social class can easily carry plague into the cattle pens" [13]. Experts also advocated burying sick cattle which were killed away from roads and rivers and to keep dogs on a chain, so they wouldn't be able to dig for carrion and spread disease [14].

During the first period of the rinderpest epidemic efforts were limited to quarantining all bovine animals to the yard or farm where the disease had been discovered, a practice which significantly reduced the cattle population. Research on rinderpest has shown that it is not "very malicious" as it can be fought through vaccinations of animals serum [15]. By the initiative of the ministerial authority responsible for agricultural affairs in Pulawy, the laboratory there began research on rinderpest and the production of a serum against this disease [16]. The first batches of serum against rinderpest were produced at the beginning of March 1921 [17] though the amount of serum initially produced was low. The chief commissioner of the fight against rinderpest made the decision that only infected cattle staying in ventilated areas would be vaccinated [18]. Treatment of advanced cases of disease by the serum did not yield the expected results. This is why immunizing healthy and non-fevering cattle was practiced [5]. During November of 1922 the Museum of Industry and Agriculture hosted a meeting of the members of the Union of Veterinary Doctors of the Polish State which discussed the need to consider various methods to eradicate these communicable diseases [19].

Poor organization of veterinary services, as well as a lack of trained doctors hampered the fight against rinderpest. This is because the reorganization after the difficult period of national captivity was taking place. [20]. During this period in the Polish state, the several hundred veterinarians working throughout the country was insufficient [21]. During the rinderpest occurrence at that time, there was only an average of 6 - 8 doctors of veterinary medicine for each province [9]. An army of veterinary students joined the fight against rinderpest causing the number of people involved to rise [22]. The fight against this epizootic plague was supported by volunteers of the Red Cross sent to Poland from Denmark [23]. The Danish State was worried that the rinderpest plague could easily move to Scandinavia.

Knowledge of rinderpest during this period was not as extensive or precise as it is today. Scientific and agricultural publications provided general information [24], emphasizing that rinderpest is "the most terrible of contagious animal diseases" [25]. Not all of these professional works helped with prophylaxis and treatment for animals [26]. Veterinarian Wladyslaw instructed farmers that Rinderpest causes germs in all tissues including the blood, meat and skin as well as in all secretions and excreta coming from the sick animal and can therefore cause a secondary round of infection through saliva, sweat, feces, urine, etc. either directly or through feed, bedding and manure. To try and understand how great is the chance of contagion from rinderpest, it is sufficient to cite that one  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($ thousandth of a gram of a sick animal's blood shot under the skin of a healthy one is enough to cause the sickness and bring death." [27]. In the agricultural newspapers, signs and symptoms of rinderpest included among others; the animals having a high body temperature, a rich flow of tears and redness of mucous membranes [8]. During the Polish-Bolshevik War, articles appeared in the press reporting the enemy's intentional introduction on Polish territory of animals infected with rinderpest in order to further destabilize and destroy Polish agriculture [28]. Such information fueled a hostile situation as well as fear of epizootic. Finally, in June 1923 rinderpest was eliminated on Polish soil. The difficulties and shortcomings faced in the fight against this disease contributed to knowledge of how other epizootic diseases can be treated, including pulmonary plague.

The rapid spread of animal diseases after the First World War forced the development of scientific studies and discussions exploring the possibilities of creating an effective method to fight against epizootic diseases. In May of 1921 an international conference was organized in Paris where the effective control of animal diseases was discussed. Participants formed a project called the International Affairs Office for Combating Infectious Diseases of Animals. The hope was expressed that this Office would play an important role in protecting farmers against naturally occurring diseases of livestock [29]. International, environmentally concerned doctors of veterinary medicine have discussed the issue of providing assistance to countries affected by epizootic rinderpest, rightly noting that we must first eliminate the source of the emergence of the disease. However, in that difficult period of political tensions the idea of a common fight against infectious diseases was impossible to realize. In 1921 experts estimated that an outbreak of rinderpest that took place in Soviet Russia would remain for many years as a source of the spread of the disease to other countries [30]. These international conferences on rinderpest were also attended by Polish delegates. They argued during their speeches that the methods used to combat rinderpest in Poland are adapted to the conditions prevailing in the country [31].

### **Conclusion**

During the first years following World War I, Polish veterinary services fought with serious diseases destroying the livestock populations. Historical sources from that period leave no doubt that one of the greatest challenges veterinarians and farmers faced was rinderpest. As a result of this epizootic many Polish breeders lost their cattle which were the basis of their existence. The efforts of the specialists in the fight against rinderpest should be deeply appreciated. Their work of taking samples, stamping and introducing quarantines was carried out in all Polish provinces even though these activities did not always meet with the approval of cattle breeders. Some of them saw the work of veterinarians as merely destroying their years of hardships and work.

Poland regained independence in 1918 which created better conditions for conducting scientific research on animal diseases. The course of this work was recorded by the trade magazines of their time in the sections of original articles and reports of scientific inquiry. Today, they remain an interesting source of knowledge about the Polish veterinary medicine of the interwar period and are still referred to in historical studies of breeding livestock in Poland. Breeding and veterinary literature from the years of 1918 - 1939 gives an interesting perspective to the modern reader of how persistence in the fight against this epizootic brought the desired results.

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