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PS12.18 (333)**Determine the clinical and epidemiological features of strongyloidosis in southern of Russia**

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Purpose: Strongyloides stercoralis is widespread geohelminth in the territories with tropical and subtropical climates which rarely recorded in some regions of Russia. The aim of the study to determine the clinical and epidemiological features of strongyloidosis in southern of Russia

Methods & Materials: We analyzed 966 medical records of patients in the clinic of infectious and parasitic diseases during 2003 to 2019. The diagnosis of strongyloidosis was established in 44 patients by detection of larvae with a five-fold study of feces by enrichment methods.

Results: The analysis of medical records showed that more than 50% of patients were over 60 years old. Intestinal strongyloidosis was detected also in 2 children - 9 and 12 years old. Women were dominated - 63.6%. According to epidemiological data, 24 cases of strongyloidosis were classified as autochthonous, 20 - as imported from Africa and Southeast Asia. 20 patients with autochthonous strongyloidosis were observed for a long time (from 5 to 20 years) and received treatment for various allergic and systemic diseases. The main reasons for examination were: eosinophilia (35%), anemia of unknown etiology (23%), dyspeptic disorders (26.9%), dermatitis (23%). In a single study of feces by the Berman method, larvae of Strongyloides were found in 53.8% patients, in a double study - in 92.3%, and only in 1 patient larvae were found in the third study of feces. At a high intensity of invasion (8 or more larvae in the field of view), parasites were found in the native smear, in the study of feces by methods of ether-formalin sedimentation and flotation.

Blood eosinophilia (from 10 to 62%) was observed in 81.8% of patients, anemia - in 13.6%, thrombocytopenia - in one patient (103 × 109). In a coprological study, 95.5% of patients showed a significant amount of muscle fibers, plant fiber, as well as a high content of neutral fat, fatty acids, saponified fats and starch.

Conclusion: The conditions for the implementation of the biological cycle of Strongyloides stercoralis exist in the Southern Russia, located mainly in the temperate climate zone. The most effective and accessible method for diagnosing invasion is Berman's method.

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PS12.19 (764)**Myopericarditis, Hepatitis and Meningitis in a patient with Congenital Chagas Disease (CCD)**

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Purpose: Describe a patient with myopericarditis, hepatitis and meningeal involvement due to congenital Chagas disease (CCD).

Methods & Materials: case report.

Results: A 26-day-old patient was derived to our hospital due to severe pericardial effusion. He had a maternal history of untreated Chagas disease. At physical examination he presented with generalized jaundice, mild respiratory distress and hepatomegaly. He required oxygen therapy for two days through a low-flow nasal cannula. Echocardiographic evaluation reported normal connection of chambers and vessels, moderate to severe pericardial effusion -without signs of hemodynamic compromise- and left ventricular hypertrophy with septal predominance and preserved ventricular motility.

Lumbar puncture showed hypercellularity with a predominance of polymorphonuclear cells. Filmarray® and cultures of cerebrospinal fluid were negative, without the presence of protozoa. Direct parasitological examinations of blood -microhematocrit- were positive and CCD was diagnosed. The patient was treated with benznidazole 5 mg/kg/d for two months. There were no adverse effects to the medication. Due to the initial symptoms of hepatitis, the antiparasitic was indicated at the minimum recommended dose. However, the response was satisfactory, negativization of the parasitological study of blood at 20 days after starting treatment and with complete resolution of the symptoms, including cardiac and liver involvement.

Conclusion: We present a clinical case of symptomatic CCD with myopericarditis, hepatitis, and meningoencephalitis with a good response to antiparasitic treatment. CCD presents asymptomatic in 95% of cases. When it is symptomatic, the most frequent clinical manifestations are low birth weight, prematurity, muscular hypotonia, fever, hepatomegaly, splenomegaly, CNS alterations (seizures, cerebral calcifications, microcephaly), and skin signs. Among the cardiac manifestations, we find persistent tachycardia, congestive heart failure with ST-segment abnormalities, flattening of the T wave, lengthening of the A-V conduction time and low voltage, acute myopericarditis, and chronic fibrosing cardiomyopathy. The anti-trypanosomiasis treatment approach should be indicated promptly in all patients with acute or congenital infection. Benznidazole and Nifurtimox are the first line drugs. Treatment reduces the severity of symptoms, shortens the clinical course, and reduces the duration of detectable parasitemia. Control of the disease requires detection and treatment in people with the possibility of pregnancy and detection during pregnancy.

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PS12.20 (826)**Circulation of coronavirus in bats from northern and central Argentina: preliminary study**

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Purpose: Bats have proven throughout history to be the reservoir and disseminator of a wide variety of viruses in nature, where they have sometimes been linked to important infections in public health, such is the case of coronaviruses causing SARS-CoV, MERS-

CoV and SARS-CoV-2. Considering the importance of these previous events and due to the lack of information on the coronavirus present in the bat population in Argentina, we decided to monitor their circulation in two provinces in which there is continuous contact of these animals with others (domestic and wild) and human beings.

Methods & Materials: Samples of pharyngeal swabs and fecal matter were collected from different species of bats from the provinces of Jujuy (northern Argentina) and La Pampa (central Argentina), and from other wild and domestic animals that cohabited with bats. The samples were stored in RNA Shield® 1X until processing. The viral RNA extraction was performed with Quick-RNA Viral Kit (ZYMO RESEARCH®) and the cDNA with EasyScript First-Strand cDNA Synthesis SuperMix (TRANS®). Each sample was analyzed individually by nested PCR directed to a conserved 440 bp fragment located within the viral polymerase gene (Chu *et al.*, 2006).

Results: Preliminary results from 43 stool samples and 53 pharyngeal swabs from insectivorous and hematophagous bats demonstrated the presence of alphacoronavirus sequences in four fecal samples (3 insectivorous bats and 1 hematophagous bat) and in one pharyngeal swab sample from an insectivorous bat. Through comparison with GenBank sequences, the closest relatives identified were alphacoronaviruses of the species *Myotis riparius/nigricans*, *Molossus rufus* and *Desmodus rotundus*. Interestingly, we found alphacoronavirus sequences of one species present in another bat species since the colonies were in close contact. Samples from other animal species are in the process of being analyzed.

Conclusion: The identification of new coronaviruses that naturally inhabit bat populations and in animal species that share the biological niche, contributes to the knowledge of viral evolution and the biology behind the jump between animal species.

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Topic 14: Ethical Issues in Infectious Diseases

PS14.02 (131)

Zoonotic Disease Surveillance and Response: Is There a Duty to Intervene when a Disease is Detected?

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Purpose: There are currently 7.8 billion humans on Earth; as the human population continues to grow, so does our encroachment into previously wild spaces. When the distance between humans and animals decreases, zoonotic diseases (ZDs) spill over from animal to human populations. These diseases exact an enormous toll on human life and global markets. One strategy to combat ZDs is surveillance. The WHO, NIH, FAO, CDC, and other organizations have devoted billions of dollars and man-hours to the surveillance of ZDs. These programs employ a four-pronged approach: disease tracking, analysis, risk assessment, and response. To date, response efforts receive an insignificant amount of support because most potential ZDs do not represent an acute threat to human populations. Furthermore, few scholars have addressed the importance of response programs and those who do advance anthropocentric arguments that fail to acknowledge humanity's collective responsibility to wild animal populations. In this presentation, I advance two arguments – epistemic value and benefit to wildlife - on the importance of responding to potential ZDs detected in animals.

Methods & Materials: Analysis of the epistemic importance of ZD responses, which are informed by the principles of One Health,

shows that responding to ZDs before spill over benefits human populations.

Arguments informed by the study of animal rights and environmental stewardship illustrate that humans are responsible for the animals they displace.

Results: Anthropocentric arguments illustrate that studying ZDs in wild animal populations increases knowledge of disease dynamics. Furthermore, data from animal-based pharmaceutical or population-level interventions translates to human populations in the event of a spill over. Arguments informed by the study of animal rights and environmental stewardship illustrate that humans are responsible for the animals they displace. The displacement of animal populations is directly linked to outbreaks of zoonotic disease; thus, humans must treat any pathogenic infection discovered during surveillance.

Conclusion: Responding to ZD outbreaks is not for the benefit of humans, but for the benefit of animals that were made ill due to human actions - there is a duty to care for animals that are both directly and indirectly harmed by human driven habitat loss.

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Topic 15: Foodborne and Waterborne Diseases

OP15.01 (722)

Trichinella britovi outbreak in north-west Italy, 2019-2020: beware of wild boar

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Purpose: Trichinellosis, a foodborne zoonosis due to nematodes of the genus *Trichinella*, usually occurs in form of outbreaks following the consumption of untreated meat. Sport hunted wildlife is an increasing source of human cases at the global scale, though North Italy has been rarely involved. We report here a wildlife derived trichinellosis outbreak which spread throughout an entire alpine valley.

Methods & Materials: We retrospectively included 96 outpatients referred to the Infectious Diseases Hospital "Amedeo di Savoia", Torino, North Italy between December 20th, 2019 and January 15th, 2020 after consuming raw sausages from a wild boar of unknown age hunted nearby the village of Chiomonte, in the Susa Valley, 63 Km away from Torino, on November 5th, 2019. Clinical, demographic and laboratory characteristics were recorded at the time of presentation. IgG serology for *Trichinella* was performed by immunoblot (Trichinella E/S IgG kit, Effegiemme, Milan, Italy).

Results: In our cohort we found that 47% of patients were symptomatic, with an uncertain median time from consumption of raw sausage to symptoms and a median time from symptoms to presentation at clinic and serology testing of 14 (IQR 11.75) days. Peripheral blood eosinophilia >500/cmm and CK alterations were found in 26% and 24% of our cohort, respectively. IgG serology was resulted positive in 48/96 (50.0%) of the patients, allowing a diagnosis of confirmed *Trichinella spp.* infection, later identified as *britovi*. Only two patients required hospitalization, and no patient suffered serious consequences.

Conclusion: We describe in this report the main features of the largest trichinellosis outbreak ever registered in Piedmont region. No major characteristics in clinical, laboratory or serological data were highlighted. Most likely, patients were infected after eating meat products from a single animal, given the very low prevalence of the infection in wild boars in the area. No autochthonous human case has ever been detected in Torino province, and a sin-