

Anthropozoonosis

Anthropozoonoses (zoonoses) are infectious diseases transmitted from animals to humans.



Ixodes ricinus is among the arthropods that transmit anthropozoonoses.

A person can become the target of these infections while staying in nature, coming into contact with an infected or dead animal or its parts (fur, feces). Pets are also a significant source of infection. Another example is farms, where a person is exposed to contact with livestock and is thus at risk of infection. **Carriers** can be, for example, arthropods (ticks , mosquitoes, fleas, lice), mammals, birds, fish.

Transmission

The infectious agent comes into contact with humans in a variety of ways (blood-sucking insects, food contamination...). Transmission occurs through direct contact, swallowing, inhalation, through inanimate media (saprone) or living vectors.

Gates of entry

- **skin** - transmission by mere contact or penetration of the pathogen into a small abrasion,
- **mucous membrane** - most often by breathing the pathogen aerosol (respiratory tract) and food contamination (digestive tract),
- **blood** - blood-sucking insects can release pathogens when sucking blood (Plasmodium in the saliva of Anopheles mosquitoes),
- **trauma** - in the case of a deeper injury, the pathogen is introduced into the wound (rabies bite).

Etiology

Etiological **agents** include viruses , bacteria , parasites , fungi and prions .

The most common zoonoses in our country:



Campylobacteriosis is the most common cause of bacterial diarrhea in the Czech Republic.

- salmonellosis (Salmonella enteritidis , Salmonella typhimurium ; poorly cooked meat or eggs),
- campylobacteriosis (Campylobacter jejuni ; poorly heat treated poultry – grilled chickens),
- yersiniosis ,
- toxoplasmosis (Toxoplasma gondii ; ingestion of oocysts in cat faeces, poorly cooked meat of the intermediate host),
- tularemia (Francisella tularensis ; mosquito, tick, handling of an infected hare/rabbit, etc.),
- leptospirosis (leptospira r. interrogans , Leptospira icterohaemorrhagiae , dangerous for humans ; transmitted by rats, with their urine it gets into stagnant water and into food, possibility of infection from sick animals by scratching or biting),
- listeriosis ,
- ornithosis ,
- toxocarosis (Toxocara cati , Toxocara canis ; food contaminated with cat or dog feces),
- teniosis ,
- erysipeloid ,
- cat-scratch disease (Bartonella henselae ; scratched by an infected cat).

Diseases transmitted by **arthropods** include, for example:

- Lyme disease ;
- tick-borne encephalitis ;
- ehrlichiosis – 1) human granulocytic ehrlichiosis (LGE) – (Anaplasma phagocytophila ; tick vector), 2) human monocytic ehrlichiosis (LME) – (Anaplasma Chafeensis ; tick vector). Ehrlichiosis is 4 times more common in men than in women.
- tularemia ;
- leishmaniasis - cutaneous, mucocutaneous, visceral forms. The life cycle of Leishmania occurs between humans and mosquitoes of the genus Phlebotomus.

Brucellosis was completely suppressed in our country (mainly thanks to the improvement of farm hygiene). Also, rabies has not been proven here since 2002.

Links

related articles

- Tick-borne diseases

Reference

1. CHALUPA,, et al. *2006-01-30* [online]. ©2005. [cit. 2009-12-16]. <<http://www1.lf1.cuni.cz/~hrozs/zoopch1.htm>>.