

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 (saprionose) 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>>.