

Zoonosis

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

A person can become the target of these infections during their stay in nature, in contact with an infected or dead animal or its parts (furs, feces). Pets are also a major source of infection. Another example is farms where a person is exposed to cattle 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 various ways (blood-sucking insects, food contamination...). Transmission occurs through direct contact, ingestion, inhalation, via inanimate media (sapronosis) or living vectors.

Entrance gates

- **skin** – transmission by mere contact or penetration of the pathogen into a small abrasion,
- **mucous membrane** – most often by pathogen respiration (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 case of a deeper injury, the pathogen is introduced into the wound (bite in rabies).

Etiology

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

The most common zoonoses in our country:

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

Between **arthropod-borne diseases** we include for example:

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

Brucellosis was completely suppressed in our country (mainly due to improved hygiene). Also rabies has not been proven in our country since 2002.

Links

Related articles



Tick of the species *Ixodes ricinus* - the most common transmitter of borreliosis to humans



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

- Onemocnění přenášená klíšťaty

References

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