PARASITE EVOLUTION AND THEIR INCIDENCE ON ZOONOSES

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INTRODUCTION

- Specificities of parasites.
- Genetics and immunogenicity of parasites.
- Relationships between parasites and hosts.
MECHANISMS OF PARASITE EVOLUTION

- **Protozoa.**
  * Adaptation of parasites to different hosts: intestinal amoebae from soil to liver.
  * Notion of healthy reservoirs: *Giardia intestinalis* in humans (adults versus children).

- **Arthropods.**
  * Co-evolution in Arthropod borne parasites.

- **Helminths.**
  * Relationships between host and parasite in intermediate host molluscs.
  * Case of Vertebrates being acting as definitive as well as intermediate hosts.
EVOLUTION OF ZOONOSES CONCEPT

- Which animals are involved: domestic, wild, pets?

- Contamination by zoonosic parasites: inevitable or behavioral choice?

- Social human factors implicated during zoonoses.
INCIDENCE OF ZOONOSES ON PARASITE EVOLUTION

- Speciation.

- Large and diversified species reservoir.

- Zoonosis: disease with at least 2 different species involved, one of which is man.

- Parasite migrations is a factor of evolution.

- Human migrations as an inducing factor for zoonoses.
CONCLUSION

- Are zoonoses a required phase for parasite development from an exterior life cycle to a strict human parasite?

- Does parasite spreading increase the risk of zoonoses diffusion?

- Does the Red Queen still have a future?
SHORT BIBLIOGRAPHY


ACKNOWLEDGEMENTS

The author would like especially thank Professor Marie-Laure DARDE (UMR INSERM 1094) for re-reading manuscript, and Dr. Jeanne COOK-MOREAU (UMR CNRS 6101) for the English translation.
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Acanthamoeba sp

E. coli

E. polecki

E. histolytica
Toxoplasma gondii: oocysts in cat intestine