

Self-medication in animals: new approach for the future studies

Opinion

Our first medicine is our food. The consumption of food plants by animals in the wild suggests two aims as needs in bioenergetics and a possible self-medication. However, many studies led across Africa on primates have already reported this self-medication behavior such as.^{1,2} Therefore, there are different criteria for different cases³ among which:

- 1) Evidence the animal sick,
- 2) Ingests something that is not part of the normal diet,
- 3) The ingested plant has known properties to counter that sickness,
- 4) Demonstrated presence of active compounds in the plant that treat or relieve symptoms (this does not apply for leaf swallowing or geophagy). In the case of leaf swallowing, the evidence is in the presence of worm in the feces.
- 5) Demonstrated that the animal recovered from the illness as a result of ingestion of said medicinal plants or soil, whole leaves.

In the present manuscript I will focus of assumption (4) describe upper concerning the leaf swallowing.

- I. The leaf species swallowed found in the feces, whole and or partially chewed, could also be assimilated to an amount of energy that is not transformed by the organism (cell). The evidence that this can only attributed to self-medication behavior could be debatable.
- II. I think that the mechanical effect of rough leaves is sometimes not very obvious or sufficient to explain by itself the expulsion of the intestinal worms, which can also be due to a high parasitaemia because of which the worms also come out of themselves due to the intestine movements as in the young individuals without any particular ingestion. It would be necessary also to consider the chemical effect of the pharmacological substances contained in these leaves, especially in case these plants have medicinal value for local people too.⁴

As a result, this interpretation of animal behavior could be a source of anthropomorphism as pointed out by Poirier-Poulin.⁵ Several literatures do not support the idea that the chemical properties of plants would be responsible for the expulsion of parasites for i.e. Huffman & Caton.⁶ For the future study I suggest to establish the relationship between pharmacological properties contained in the leaf species to expulse of intestinal worms.

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Conflict of interest

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