



Brief Commentary on Empirical Treatment

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ABSTRACT

Empirical treatment in some patients resolves simple ailments, but common symptoms may be displayed in a myriad of disease processes. Whenever possible, diagnostic testing should be pursued to direct etiology-specific therapy. This brief commentary will highlight a few examples of when empirical treatment may or may not work to cure an ailment.

KEYWORDS: Clinical sign; Diagnostic; Medicine; Pathology; Testing; Treatment

INTRODUCTION

Empirical treatment, what is it? Empirical treatment is therapy directed at a best-guess diagnosis, based on the information presented at hand. Empirical treatment is “treatment given without knowledge of the cause or nature of the disorder and based on experience rather than logic [1,2]. Sometimes urgency dictates empirical treatment, as when a severe infection by an unknown organism is treated with broad-spectrum antimicrobials while awaiting culture and susceptibility results [3]. If a patient has gastrointestinal upset, vomiting and diarrhea may be presenting clinical signs. Giving the patient antiemetics and antidiarrheal medications may not necessarily solve the problem or may be a temporary band-aid on a bigger problem. With generalized gastroenteritis caused by dietary indiscretion, these medications may suffice. However, depending on the age of the patient, we have to consider a gamut of etiologies. In young animals: parvoviral enteritis (dogs), foreign body, hereditary pancreatic insufficiency, hookworms and other gastrointestinal parasite infestations are considerations. In middle-aged animals: possibilities include hemorrhagic gastroenteritis, inflammatory bowel disease, pancreatitis, parasitism, and lower on the list is neoplasia. In geriatric or senior pets: neoplasia, such as intestinal lymphoma, may be higher on the list of differentials and parasitism lower on the list. Senior pets are also less likely to have foreign bodies; but have been known to develop pica secondary to other diseases such as splenic hemangiosarcoma (personal experience). Important to consider in determining your differentials are the signalment, presenting complaint, thorough physical examination

of the patient and history. Even with all of the above considerations, one has to keep in mind that every patient does not necessarily follow the medical books. There may be a patient at times that does not necessarily fit the usual description for the diagnosed ailment; this may include that one-year-old animal with leukemia, a type of blood cancer.

Diagnostic testing is invaluable [4]. Whether a physician is seasoned or brand new, having a confirmatory diagnostic test result is always warranted to direct appropriate treatment. Normal results of diagnostic tests can be great. They at least help you rule out some of the differential diagnoses you may be considering. Having normal organ silhouettes on diagnostic imaging, makes foreign bodies or large neoplastic masses less likely. Having a negative parvoviral test in a puppy may help ease the minds of the owners and in this same patient seeing parasite ova on a fecal float or direct smear will direct simple dewormer administration.

Expenses are another consideration for clients in determining the likelihood of running diagnostic tests or not. Some clients have a budget of \$5 and others may be fine with a \$5,000 estimate. Either way, as a physician, one has to be prepared to handle both situations and to remember not to make the decision for the client. Being able to recommend the best care for the patient at an affordable cost to each client is a goal. No one wants to turn a client/patient away because they are not able to afford diagnostics. Explaining the utility of diagnostic testing will increase the likelihood of a client allowing the tests to be run. Making sure to allow the client to ask

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questions to assure complete understanding of diagnostic testing, tests results and diagnoses thereof [5,6]. With allergic disease, often ruling in or ruling out causes takes a lot of trial and error or allergy testing can more succinctly narrow the list of possibilities and get the patient feeling better by either modification of diet or environment or both in some cases. With certain allergies, there are medications, such as steroids, that may mask clinical symptoms, but getting to the bottom of why a patient has a specific allergy may prevent them from needing medication.

CONCLUSION

In conclusion, diagnostic testing is always preferred and warranted in many cases to shorten the list of differential diagnoses. Here there are examples of gastrointestinal disease and allergic disease that may or may not respond to empirical treatment. Helping the client understand the utility of each diagnostic tests and answering questions they may have could ultimately result in them allowing diagnostic testing and getting relief for the patient sooner.

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