## DO YOU SEE WHAT I SEE? MEDICAL CONDITIONS MASQUERADING AS BEHAVIORAL PROBLEMS

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Pet owners report a wide variety of concerns to veterinary staff members, including changes in elimination patterns, changes in energy level or eating patterns, or concerns about changes in the way a pet is moving or ambulating. In most instances, what the owners are reporting are behavior changes, which makes it incredibly important that veterinary staff members have the knowledge to differentiate medical causes from primary behavioral concerns and to advise regarding diagnostic testing and appropriate therapies for the pet owner's concerns.

A list of behavioral concerns might include:

- Changes in activity
- Changes in appetite
- Housesoiling
- Aggression
- Excessive licking
- Travel/transport problems
- Episodic, unprovoked behaviors
- Unexpected behavior changes

Each of these patterns will be discussed in detail during this presentation

Changes in activity might occur due to musculoskeletal causes such as osteoarthritis, tumors or cancerous growths, or due to traumatic injuries or ligament tears. Neurological causes might include intervertebral disc disease or spinal trauma, or might occur secondarily to metabolic conditions (e.g. portosystemic shunt leading to hepatic encephalopathy). Other causes might include hormonal problems such as hyper- or hypothyroidism, Cushing's disease, Addison's disease, or changes occurring secondary to spay or neuter surgery. In addition to these medical causes, behavioral diagnoses for a primary concern of "activity change" might include fear/anxiety, "fallout" due to training methods, accidental reinforcement of active behaviors, reactivity or impaired impulse control, or insufficient exercise or mental stimulation provided to the animal.

Changes in appetite might include gastrointestinal causes such as malabsorption or maldigestion, insufficient caloric intake, nausea, food hypersensitivity, dental disease, or any condition causing abdominal pain. Hormonal causes as listed previously, or any source of discomfort can affect appetite in a variety of ways. From a behavioral perspective, causes might include low palatability of the offered food, accidental owner reinforcement, opportunistic behaviors, breed related tendencies, or fear/anxiety issues.

Housesoiling issues may occur due to primary urinary tract conditions (infection, crystals or stones, renal insufficiency, etc.) or primary gastrointestinal conditions (gastroenteritis, parasites, bacterial overgrowth, inflammatory bowel, or conditions that result in diarrhea or constipation. Incontinence can occur for a variety of reasons, and this shouldn't be overlooked when

evaluating a patient for housesoiling concerns. Neurological conditions such as seizure disorders, cognitive dysfunction, and conditions that cause an altered mental state should all be considered as primary differentials based on the presenting signs, and conditions that cause changes in concentrating ability should also be considered. Behavioral causes of housesoiling may include urine marking, incomplete housetraining, anxiety disorders, or inappropriate management of the pet (lack of access to appropriate location or substrate) should all be considered and can typically be differentiated from one another by the elimination patterns that are shown by the pet prior to evaluation.

While aggression is often a primary, and potentially normal, behavioral concern, it can also be associated with pain or discomfort, gastrointestinal conditions cause increased irritability, or may be associated with changes in hormone status (thyroid, steroid related, intact animals). If the animal presents with signs consistent with "irritability", the patient should be evaluated and treated for conditions such as pruritis, sleep deprivation, medication side effects, pain or discomfort, or cognitive changes. Primary motivations for aggressive behavior may include fear/anxiety, competitive behavior, territorial/protective traits, redirected arousal, resource guarding, or play related behaviors. In most cases, gathering a comprehensive history will allow the clinician to differentiate between these possible causes and direct the diagnostic testing and treatment appropriately.

Excessive licking can occur due to gastrointestinal disorders (esophageal reflux, gastrointestinal ulcers, irritable bowel disease/syndrome) or due to conditions that cause pain/discomfort such as osteoarthritis, allergies, or trauma. In those latter cases, licking may occur as a form of self-soothing, as a displacement behavior, or the animal may show excessive attention to the affected area of the body.

In addition to these medical causes, behavior causes may include attention seeking behavior, accidentally reinforced patterns, self-soothing due to anxiety, displacement behavior due to stress, or as a compulsive disorder.

A comprehensive differential list of causes of travel or transport problems should include gastrointestinal causes leading to nausea or motion sickness, as well as causes of pain/discomfort such as osteoarthritis or traumatic injury. Behavioral causes may include behaviors occurring due to negative experiences, inappropriate equipment used for transport, reactivity to environmental stimuli encountered during transport, fear/anxiety issues, as well as novelty or inexperience with the transportation method.

Although clients do commonly report changes in behavior as being "unprovoked", this is rarely a true assessment of the situation and a comprehensive history is often required to identify the underlying pattern. Medical problems such as seizure or neurological problems, hormonal changes (acute or chronic), or anything causing irritability or resulting in "trigger stacking" should be considered. Behavioral problems that more commonly fit into this category may include resource guarding or conflict related aggression, fear/anxiety issues, or animals with reactive behavior patterns. An underlying factor of insufficient owner knowledge or awareness should also be considered as there is often a discrepancy between the owner's perception and what actually occurs during an incident.

When behaviors occur in a pattern that is unexpected to either other owner or the clinician, there should be a higher index of suspicion of medical causes, especially for pediatric or geriatric patients in which dramatic changes in behavior are not expected. In these cases, the list of medical conditions that may cause behavior changes can be extensive, and clinical signs will vary based on the underlying cause. In some cases the behavior change is actually normal (change in tolerance of puppy's behavior by adult household dog as pup reaches early social maturity, etc.) and treatment of the problem may require understanding of normal behavior and subsequent education for the pet owner.

Whether there is an interplay between medical conditions and behavior changes/problems, it is common for multiple individuals such as veterinarians and trainers to be consulted by owners as they attempt to unravel and address their concerns. Several guidelines for navigating these situations include:

- Be professional always
- Respect boundaries of training and credentials
- Empower clients to be advocates for the pet
- Address training and learning component

Each of these communication, assessment, and treatment strategies will be discussed in further detail during the presentation.