



DISEASE OVERVIEW:

- Cognitive dysfunction syndrome (CDS) is a neurological degenerative disorder of senior dogs and cats characterized by gradual cognitive decline and increasing brain pathology. Elderly animals are less able to perform a variety of tasks. Progression of the disease is very gradual and owners may fail to recognize the dysfunction is happening. Cognitive dysfunction may also be a manifestation of inherited, neurodegenerative diseases, such as breed-related storage diseases.

DISEASE TRAJECTORY:

Cognitive Dysfunction often follows Trajectory 3 (prolonged dwindling) with a very slow and gradual decline of frailty.

PALLIATIVE CARE GOALS:

- Manage anxiety and comfort
- Allow for sleep (patient & family)
- Manage hygiene and house soiling

COMFORT KIT:

- Manage acute anxiety and comfort
- Potentially address seizure risk
- Allow family to rest

KEY TALKING POINTS:

- Clinical Signs: DISHA- disorientation, changes in social interaction, changes in sleep-wake, house soiling, changes in activity level and anxiety
- Diagnosis of exclusion and clinical suspicion
- Cognitive dysfunction can require intense caregiving and can strain the human animal bond significantly. It will likely require discussion of emotional distress vs physical distress in both the patient and family. Quality of Life should be discussed relative to both patient and family.

POSSIBLE SEQUELA & COMORBIDITIES:

Since it is one of the most common (and under- diagnosed) conditions we see, cognitive dysfunction often does present with other comorbidities. The most common concerns affecting treatment include:

- **Arthritis/Pain:** Immobility and pain can both exacerbate and cause anxiety to worsen. Utilizing adequate pain management can help significantly reduce related anxiety.
- **Anxiety:** Disorientation and changes in the main senses can cause or worsen pre-existing anxiety. Utilizing our anxiety treatment options can be very helpful- especially with night waking.
- **Reflux esophagitis:** Esophagitis can cause anxiety and pacing and tends to be worse at night. It can be helpful to treat empirically with omeprazole +/- metoclopramide at bedtime to aid pets in settling and sleep..
- **Seizures:** Seizures are rarely reported, but can be seen in the later stages of aging brain changes. Midazolam could be included in a comfort kit if concerned.



PHARMACEUTICAL SUPPORT:

- Antacids: Famotidine, Omeprazole, Ranitidine
- Selegiline (*more success if started very early in disease*)
- Gabapentin (*improves REM sleep*)- can be only used at night
- Trazodone
- Melatonin: Give right before bed, usually lasts 8 hours.
- Alprazolam, Diazepam, Lorazepam

NOTES:

Make sure pain management for comorbidities is adequate.

NON-PHARMACEUTICAL SUPPORT:

TCVM:

Herbal Medications:

- Shen Calmer, Stasis in the Mansion of the Mind, NutriHerb Bright Mind

Acupressure/Acupuncture:

- An Shen, HT 7, GV 20, GV 14, Bai Hui, ST 40

Food Therapy: cooked, whole foods with iViBlend and calcium

- Tui-na massage

NUTRITION & NUTRACEUTICALS:

- Brain Health/Neuro Diets
- Omega FA- Grizzly, Welactin
- NutriCalm- Rx Vitamins for Pets
- SamE
- Purina Calming Care (probiotic)
- Lion's Mane mushrooms
- Apoaequorin- Neutricks (*off market*), Prevagen (*some concern for Vet D content*)
- Cell Advance 440 or 880 (based on pet size)
- Selliquin/Composure Pro/Calming Treats
- Valerian Root
- CBD- Ellevet Calm & Comfort Chews
- Senilife (*Ginkgo Biloba, Resveratrol, others*)
- Zylkene

PHYSICAL MEDICINE:

- tPEMF: Assisi Canine Calmer 2-4x daily
- Exercise- 30 min walking/swimming per day
- Massage
- Thundershirt

OTHERS:

- Mental Enrichment- feeding puzzles, hidden toys, grooming activities
- Pheromone collars, sprays, diffusers
- Rescue Remedy (*dose based on stress level*)
- Calm-a-mile, Neuro Boost- AnimalEO
- Music therapy- PetSounds, Harp music
- Reiki therapy