# **DERMATITIS IN DOGS**

#### DR ANNIE VARGHESE, MVSc (Sur), PhD

**COMPANION ANIMAL PRACTITIONER** 

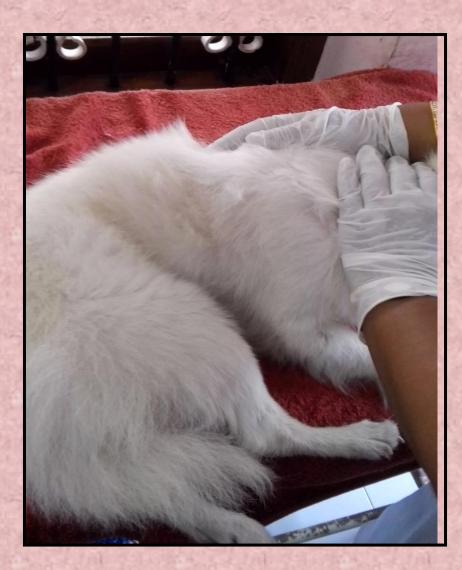
**THIRUVANATHAPURAM** 

### **A HEALTHY DOG**

Moist & bright eyes Clean ears Soft skin Smooth & shiny hair coat Clean teeth Pink gums Alert and active



### SKIN AND HAIR COAT – soft, combed



# HEALTHY DOG – eyes, moist, bright



### EARS - clean, without debris



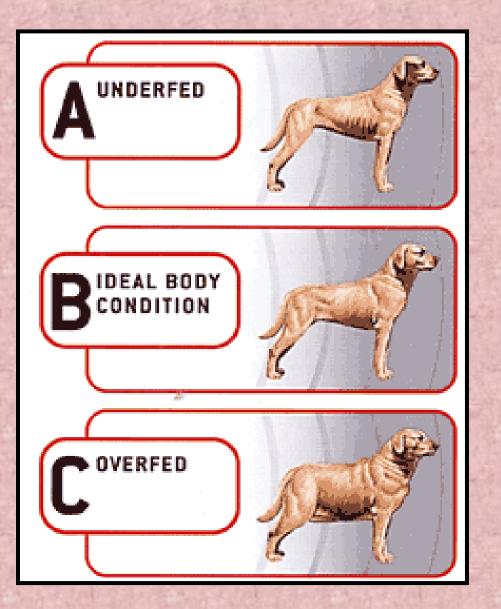
# **GUMS – pale rosette**



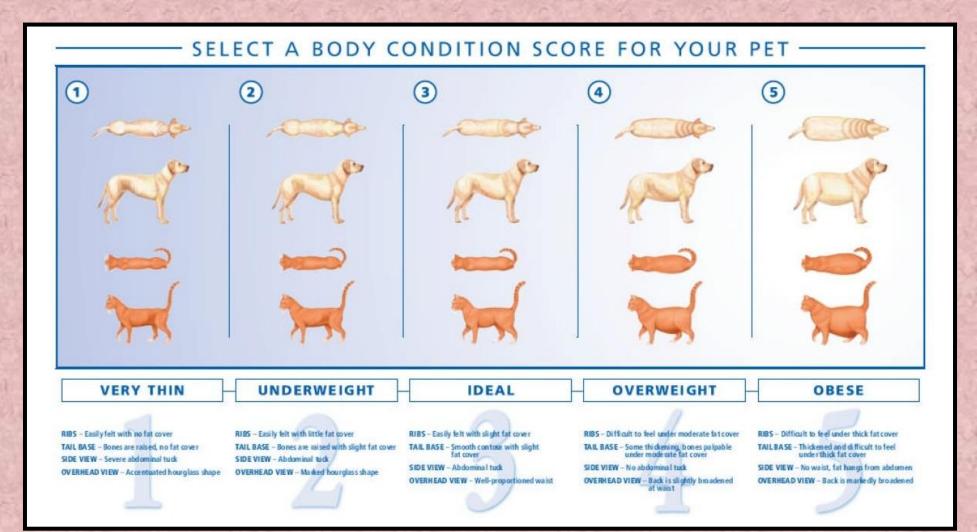
### ABDOMEN – not bloated, tucked in



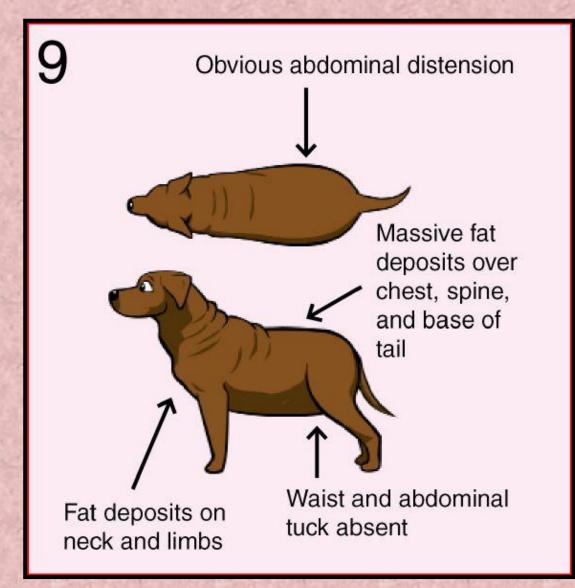
### **HEALTHY BODY SCORE**



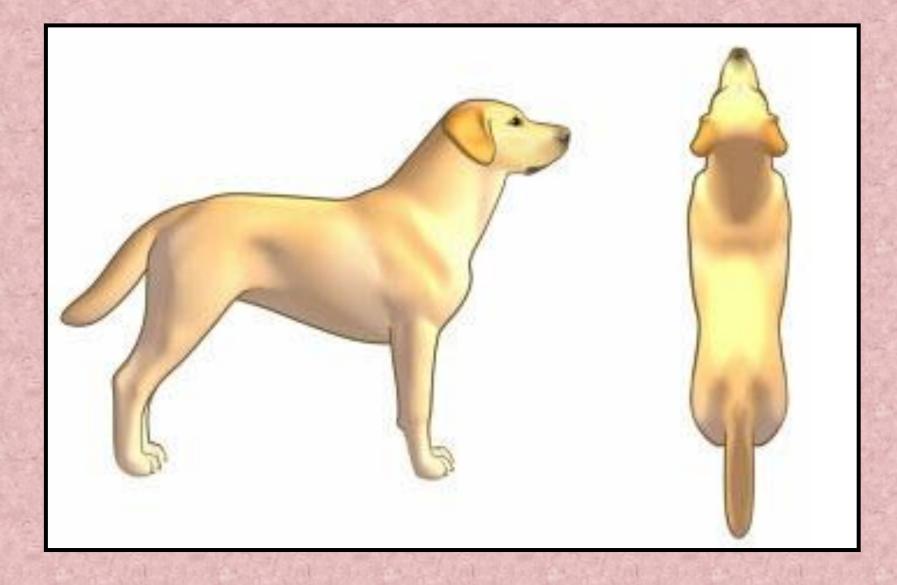
### **BODY CONDITION SCORE**



# **OBESE DOGS**



### **HEALTHY BODY SCORE**







### **REQUIREMENTS FOR A HEALTHY SKIN**

- DIETARY REQUIREMENTS
- BODY HYGIENE
- ENVIRONMENT
- > EXERCISE

# **DIETARY REQUIREMENTS**

- Water
- Energy
- O Carbohydrates
- Fat
- Protein
- Vitamins
- Minerals
- Fiber

# **A HEALTHY DIET**

Water
Energy
Carbohydrates

FatProtein

VitaminsMinerals

• Fibre

60ml/kg/day; vegetables, milk Rice, wheat, fried food

Beef, egg, Fish, chicken, meat, pulses, egg white Vegetables, fruits Bones, salt, fish, vegetables, milk, fruits Vegetables, fruits

# **BODY HYGIENE**

Daily brushing esp in hairy, furry dogs
Bathing with dog shampoos (weekly, monthly, bi/triweekly)
Anti tick / anti flea treatment (prior to monsoons)
Grooming ( eyes, ears, nails, fur)
Diet

- Fibre
- Water
- Vitamins (A, D3, biotin, E etc)
- Minerals

Exercise

 $\checkmark$ 

Proper resting area – good ventilation, cool

# **Different skin lesions - primary**

Alopecia – loss of fur (generalized /local)

□ Macules – non elevated ares of discoloration

- Papules elevated areas of discoloration
- □Vesicles fluid filled lesions
- **Wheals** elevations which are flat topped, erythymatous
- □Nodules larger elevations
- **Tumours**

#### **Different skin lesions - secondary Epidermal collarettes (later stages of pustules & vesicles) Excoriation** (self trauma) **Erosions / Ulcers** (loss of epidermis) **Fissures** (loss of dermis) Lichenification (thickening & dark pigmentation) (esp at elbow & hock joint)

# **Different skin lesions - others**

Alopecia

**Scale and/or crusts** 

**□**Hot spots

Follicular casts (plugging of hair follicles with visible keratin)
 Comedones (blackheads)

**Pigment changes** 

Erythema

### **Common causes for skin problems**

- > Bacteria
- Fungi, yeast External parasites Internal parasites > Dry skin Dietary defects >Lack of exercise Hormonal problems
- > Allergy

### **Bacterial dermatitis**

Macules, papules Erythema Pustules Hot spots **⇔**Oozing **\***Itching ✤Pain **\***Inflammation PYODERMA



### Line of treatment – bacterial dermatitis

**Environment** – hot, humid

**Floor cleaning – avoid Lysol etc.** 

- use cloth detergent, kennel hygiene

Diet

- fibre, water

Soothing shampoo bath

- Episoothe, Allermyl, Oat shampoo, Zweena

- biweekly

**Local ointments** 

- Vetbacin, Candiderma (after hypertonic saline wash)

### Line of treatment – bacterial dermatitis

Antibiotics – Cephalexin (10-30mg/kg b wt 12 hourly)

- Enrofloxacin, Cefixime for 1 week
- pulse therapy gap for 1 week, repeat for 1 week

Anti inflammatory

12

- Meloxicam (0.2 mg/kg im), Serratiopeptidase tabs

Anti histamines

Levucetrizine (1 or 1/2 Tab BD or OD as required)
 Correct deficiencies

- Vit A, D3, E supplements (Nutricoat Advance, Softcoat)

*Review – weekly at first, then biweekly till discharge* 

### Folliculitis – inflammation of hair follicles



# **Fungal dermatitis**

#### DANDRUFF LIKE DUST, ERYTHEMA, MILD FISSURES



#### ALOPECIA, ITCHING, BARE SKIN PATCHES



# **Fungal dermatitis**

#### **CHRONIC FUNGAL DERMATITIS**

#### > Alopecia

- Dandruff like whitish dust
- Itching esp at night
- Erythema initially
- Scales
- Crusts
- Follicular casts
- Hyper pigmentation
- Acanthosis later
- Lichenification



### Fungal dermatitis – line of treatment

Diet correction

Environment correction – cool but dry

**Medication:** 

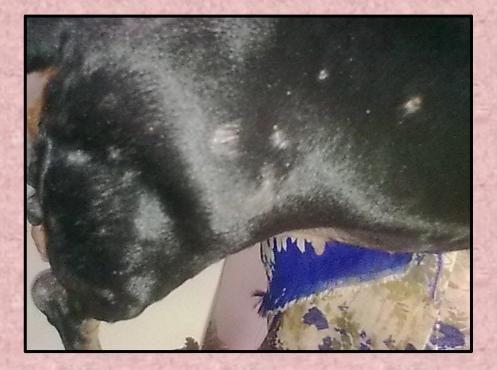
- Shampoo ketoconazole, miconazole
  - once in 3 -4 days
- Daily ointments combination of antibacterial, antifungal, steroid
- Antifungals griseofulvin, ketoconazole, Itraconazole, Terbinafine
- Liver protectants Liv 52pet, Diarest Liv...
- Antihistamines levucetrizine, cetrizine
- Vit A, D3 supplementation
- Amino Acid supplementation

Treatment continues - biweekly/monthly review





# Fungal Dermatitis – Symptoms early





### Fungal Dermatitis – Symptoms chronic













### Malassezia dermatitis - yeast

- Hyper pigmentation blackish
- Sour bad smell typical
- Severe itching
- \* Alopecia
- Crusts, scales
- Excoriations
- Fissures
- Lichenification





Immune deficient animals , prolonged half treated dermatitis

# Malassezia dermatitis - Treatment

Similar to anti fungal treatment

Prolonged even upto 6 months

Ketaconazole – drug of choice

Amitraz – may be needed

- 1ml in 4ml of water

- after bath with ketoconazole

Liver protectants - essential

# **External parasites**

- Ticks, Fleas, Mange (Demodex, Sarcoptes, Psoroptes)
- Prior to monsoon
- Alopecia
- Itching, oozing
- Scabs Crusts formation
- Excoriations
- Irritable, Snappy behavior
- **Dull**
- Maggot wounds secondary
- Bacterial infection secondary
- Surroundings affected Vicious cycle



### Fleas







### Flea infestation - diagnosis

#### Symptoms :

•

- Scratching behind the ear
- Rolling on its back
  - Presence of flea dirt on back line, croup





# **External parasites - Treatment**

Principle : Clean dirt  $\implies$  apply medication  $\implies$  deal with surrounding **BODY** 

Shampoos : permethrin, cypermethrin

•Sprays : Fipronil with or without S- Methoprene (weekly).....

Spot on : Fipronil, S- Methoprene, Selamectin, Imidacloprid.... (weekly)

•Oral : Ivermectin 200mcg/kg body wt

Parenteral : Ivermectin(SQ) , Doramectin(IM)

SURROUNDINGS

Clean with cloth detergent

Amitraz 12% - RIDD, Amitick (1ml : 2ml water)

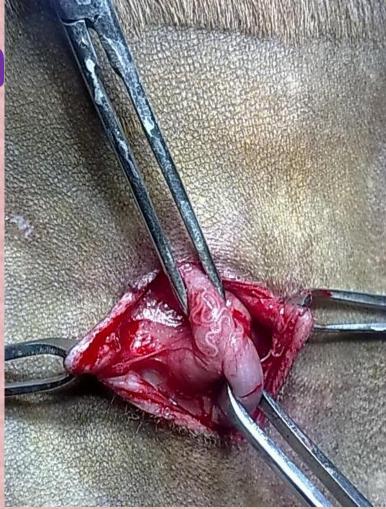
Use fire to touch all areas (does not enter crevices and fissure)

### **Internal Parasites**

Microfilaria
Erlischia
Babesia
Anaplasma
Leishmania etc etc
List goes on ....!

# **Microfilaria/ Heart worm**

- Dirofilaria immitis etc
- Filarial worms
- Microfilaria in blood, plasma
- Later can block terminal vessels
- \*Lodges in aorta
- Can cause cardiac arrest



# Microfilaria/ Heart worm

Inter digital erythema

□Itching, oozing

**Fissures on dorsal aspect** 

□Hot spots (secondary bacterial infection)

#### **DIAGNOSIS & TREATMENT :**

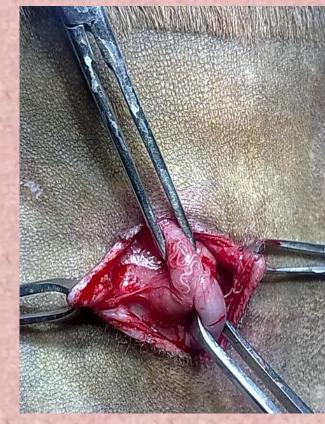
Wet film

<2/hpf – ivermectin @ 200mcg/kg b wt SQ (repeat after 1week)</p>

2 - 4/ Hpf – Ivermectin @ 1/4<sup>th</sup> dose SQ (Full dose @ weekly interval)

> 4 / Hpf - Diethylcarbamazine Citrate (Banocide @ 10mg /kg oral)

W/F biweekly ..till load come to <2/Hpf</li>



### **Microfilaria/ Heart worm**

#### **PREVENTION:**

- W/F every 3 months
- Selamectin spot on (Selamec, Revolution, Radicate) <10Kg/ 10 -20Kg/ 20-40 Kg/ 40 -60Kg

# **Dry Skin**

#### Diet

- Excess use of Shampoo
- Environment

#### TREATMENT :

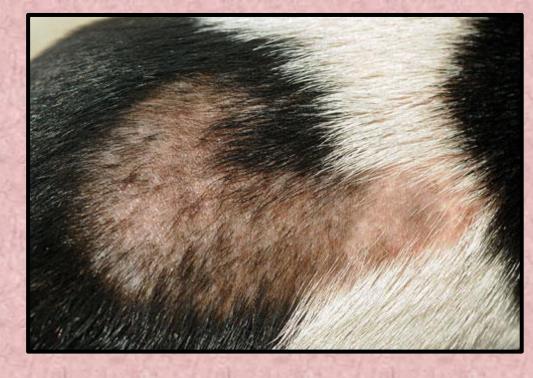
Correct diet and environment

Supplements

Oiling : Neem oil, Flematic skin oil (Ttk), normal oils

**Correct shampoo bath:** 

Do not leave the shampoo on for 10 – 20 mins Keep massaging the body with shampoo on Wash off after 5 -10 mins massage



# Allergic dermatitis

•Atopic dermatitis

- Contact with allergens
- o skin

o air

o food

oLocate allergen

Recurrence



# Allergic / Atopic dermatitis

Find the Allergen

- Treat for local symptoms
- Hypertonic dip/wash + local ointments daily basis(lchmune c)
   Bathing : Soothing agents like piroctone olamine (Virbac, Vivaldis)
- Cyclosporine (eg Ichmune T capsules 25mg/50mg)
  - Dose : 3 -6 mg/ kg body wt upto 10 mg /kg in severe cases
- Immunosuppressant

Side effects : Vomiting, diarrhoea, anorexia, otitis externa, bacterial dermatitis, fungal dermatitis, cystitis, urethritis, lowered immunity

\*Antihistamines

Other symptomatic treatments

### Hormonal problems

- >Hypothyroidism
- >Hyperthyroidism
- Cushing's syndrome (Excess cortisol- ACTH)(Pitutary dysfunction)
   Addison's disease (hypocortisolism)(Adrenal dysfunction)
   Diabetes
- List goes on....

# Do's & Don'ts in skin infections

Refrain from steroids

- Single use, 1 week, taper and stop
- Immunosuppresant, leading to complications in long run
- Correct diet and environment
- Correct bathing method and interval
- Iocal ointments till fur grows to normal (difficult in chronic cases)
- Don't change shampoos
- Immune boosters like Immunol after other treat
- Continue Skin tonics
- Coach client for early symptoms
- Reinfection