



DIFFERENTIAL DIAGNOSIS

Between diseases



By

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إهداء

انطلاقاً من دور الطبيب البيطري المهم والبناء في تنمية المجتمع المحيط به وإيماناً مني بدور الطبيب البيطري في إدخال البسمة على شفاه المواطنين ودوره الهام في صد كل الأمراض المشتركة وإبراز دوره في الحفاظ على صحة الإنسان أولاً ثم النهوض بالثروة الحيوانية ودورها البناء في رفع اقتصاد مصرنا الحبيبة .

ولذلك كالت كل جهودي لإبراز هذا الكتيب الصغير والذي يعمل بدوره على رفعة مهنة الطب البيطري من خلال جموع الأطباء البيطريين في ربوع مصرنا الحبيبة .

وأهدى هذا الكتيب بالجان لجله الأطباء المصريين

وأشكر شكراً جزيلاً كل القائمين على طبع هذا الكتاب وتوزيعه من شركة أدوية ، الشركة العريقة التي لها باع طويل في تطوير مهنة الطب البيطري من خلال أجهزتهم العلمية والمعملية ومكانتها العلمية المنتشرة في كل ربوع مصر وكل دول العالم .

دكتور / محيي محمود إسماعيل

رقم الهاتف / ٠١٢٢٣٦٩٣١٣٥

Differential diagnosis between diseases

i. Diseases causing salivation:-

- | | |
|-------------------------------|-----------------------------------|
| 1) F.M.D | 6) foreign body in mouth & tongue |
| 2) Stomatitis | 7) sharp teeth |
| 3) Pharyngitis | 8) un fixed teeth |
| 4) Facial paralysis | 9) esophageal choke |
| 5) Organ phosphorous toxicity | 10) rabies |

ii. Diseases causing lameness:-

- | | |
|-------------------------|------------------------|
| 1) Shoulder dislocation | 8) Tetanus |
| 2) Hip dislocation | 9) Grass tetany |
| 3) Patellar luxation | 10)Thiamine deficiency |
| 4) Hoof canker | 11)Poly arthritis |
| 5) Hoof dislocation | 12)Rheumatic arthritis |
| 6) Fracture | 13)F.M.D |
| 7) Picked up nail | |

iii. Diseases caused swelling:-

- | | |
|-------------------|--------------------------------------|
| 1) E.S.D | 8) Bottle jaw” chronic fascioliasis” |
| 2) L.S.D | 9) Physiological edema |
| 3) 3 day sickness | 10)Traumatic pericarditis |
| 4) Hematoma | 11)Allergy |
| 5) Bursitis | 12)Filariasis |
| 6) Abscess | 13)Hernia |
| 7) Lipoma | |

iv. Diseases causing nervous manifestation:-

- | | |
|----------------------------|---|
| 1) Thiamine deficiency | 5) Hypomagnesaemia |
| 2) Meningitis | 6) Acute babesiosis |
| 3) Listeriosis | 7) Migration of larva of nematodes in brain |
| 4) Zinc phosphide toxicity | |

v. diseases caused colic:-

- 1) Urine retention
- 2) Intussusception
- 3) Strangulation
- 4) Torsion
- 5) Dystocia
- 6) Sand colic
- 7) Abomasal displacement
- 8) Spasmodic colic
- 9) O.Ph. toxicity
- 10) Tympany & impaction
- 11) Strangulated hernia

vi. Diseases causing bloody urine:-

- 1) Physiological cause
- 2) Hypo phosphatemia
- 3) Babesiosis
- 4) Bacillary Hb urea
- 5) Kidney form of E.S.D
- 6) Trauma of urinary tract
- 7) Cancer of urinary tract
- 8) Urolithiasis

vii. Diseases causing corneal opacity:-

- 1) Conjunctivitis
- 2) Trauma in eye
- 3) Vit. A deficiency
- 4) I.B.R
- 5) Theileriosis
- 6) Entrobion of eye lash
- 7) Ectrobion of eye lash
- 8) Presence of eye lash on 3rd eye lid
- 9) Inflammation of 3rd eye lid

viii. Diseases causing coughing:-

- 1) Bronchitis
- 2) Pneumonia
- 3) Lung worm
- 4) Drenching pneumonia
- 5) Shipping fever
- 6) Allergy due to bad ventilation
- 7) Allergy due to mixing of drug
- 8) Feeding on hot silage that is bad made

ix. Diseases causing diarrhea:-

- 1) Bovine viral diarrhea "B.V.D"
- 2) Enteritis
- 3) Parasitic diarrhea
- 4) Dietetic diarrhea

X. Diseases causing recumbency:-

- 1) Hypocalcemia
- 2) Hypoglycemia
- 3) Fracture of vertebral column
- 4) Paralysis of hind limb
- 5) Ketosis
- 6) Internal bleeding
- 7) F.M.D
- 8) Three day sickness
- 9) Arthritis
- 10) Lumpy skin disease
- 11) Acidosis
- 12) Hydropsy
- 13) Enterotoxaemia due to (acute mastitis & acute pneumonia)

xi. diseases causing abortion:-

- 1) Brucellosis
- 2) Listeriosis
- 3) Campylobacter
- 4) Trichomoniasis
- 5) 3 day sickness
- 6) Equine herpes virus 1 “EHV-1”

xii. Diseases causing sudden death:-

- 1) Clostridial diseases
- 2) Allergy “acute form”
- 3) F.M.D in case of SAT2 serotype
- 4) Sub-acute babesiosis in equine & cattle
- 5) Fault of the rapid administration of (I.V) of calcium preparation
- 6) HCN poisoning
- 7) Warfarin poisoning
- 8) Acute tetany

i- Diseases causing salivation

1) Viral diseases :-

- a) F.M.D
- b) Cattle plaque
- c) Rabies

2) Bacterial diseases:-

- a) stomatitis
- b) Pharyngitis

3) Other diseases:-

- a) Organo phosphorus toxicity
- b) Oesophageal chock
- c) Foreign bodies
- d) Sharp teeth
- e) Facial nerve paralysis
- f) Un fixed teeth (ضروس و اسنان غير ثابتة تحتاج الى خلع)

1) Viral diseases:-

a) F.M.D:-

It's a viral disease affect buffaloes, sheep, goat, cattle and camel

Symptoms:

- Off food
- Foamy salivation
- Lameness
- Excessive foamy slimy salivation

By animal examination find:-

- Temp 40-41c
- Mouth cavity: vesicles erosion are on surface of the tongue & gum
- Feet: vesicles on the inter digital space, in the area between claws & sensitive tissue as udder, teats, also can see vesicles on the knee joint

Differential diagnoses: - with cattle plaque

	F.M.D	Cattle plaque
Animals affected	Cattle, buffalo, sheep, goat & camel	Cattle & buffalo
temperature	40 - 41	40 – 41
lesion	Mouth lesion Teat or udder lesion Knee and feet lesion	Mouth lesion only
mortality	10% only (low mortality) except in young calves due to its cause tiger heart, sudden rapid death & sudden death of mature animal	60 – 70% (high mortality)
P.M	The same as on live diseased cases	Zebra like marks diffused on intestine

Treatment:-

1. Mouth wash by using sod. Bicarbonates 4-5% & then dressing by gentian violet or using iodine preparation (عن طريق الغرغرة بعد حل البيتادين)

- If vesicles size is large, severe & the animal off food & swacking of the mouth excessively & continuously يخرج لسانه من فمه ويحركه يمين ويسار
- You can use lignocaine spray on the tongue

❖ ملحوظة :- يمكن عمل تركيبة تستخدمها للفم تحتوى على :-

(200سم بيتادين غرغرة & 100جم بيكربونات صوديوم & 100سم أد3هـ)

** وتوضع بالفم من 3 - 4 مرات يوميا

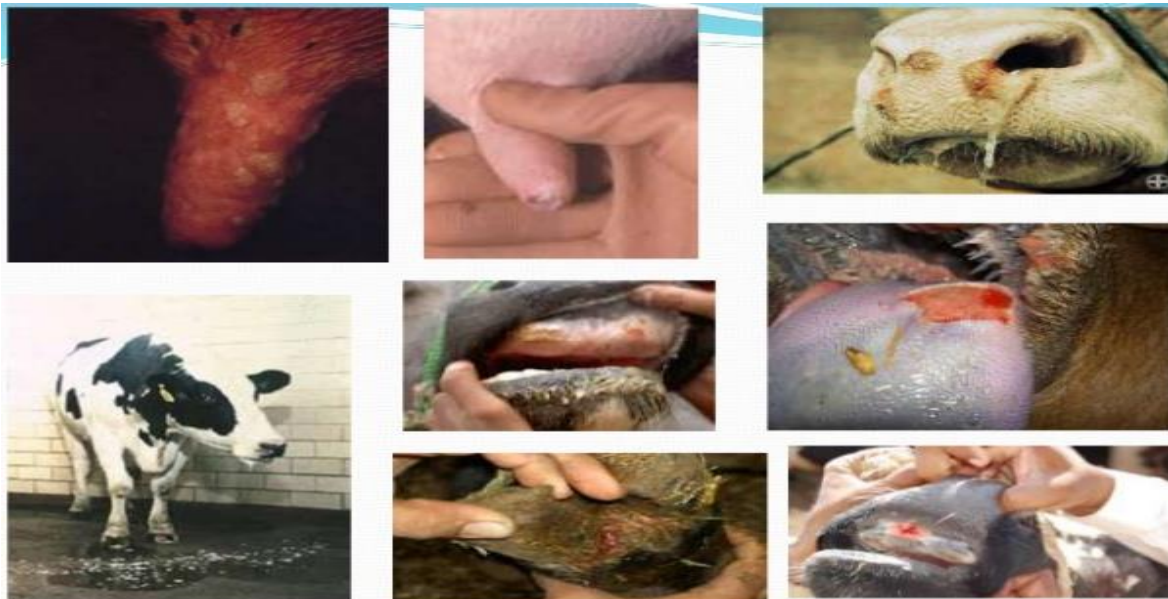
2. Foot lesion treated as following:

Washing the foot lesion by sod. Bicarbonates 4-5% conc & then dressing by using oxy-G spray or alamyne spray, as spray containing gentian violet & oxytetracycline or use cupper sulfate 4% on hoof or use medical tar on hoof or cupper sulfate solution (250gm/3-4liters water) then make dressing on the foot lesion 3-4 times daily also can use medical tar on hoof.

Medical treatment:-

- 1- Inject vit AD3E 10ml/animal(I.M) daily as immune elevator, make healing to mucous membrane of mouth or instead of AD3E use vit E & selenium

- 2- Broad spectrum A.B as oxytetracycline , enroxin or sulphonamides or amoxyciline LA
- 3- Anti-inflammatory non-steroidal as flunixin megloumin, tolfenamic acid as meloxicam
- 4- Cold fomentation on the head of the animal for lowering temperature to normal rang
- 5- Fluid therapy as normal saline (dextrose5%)
If temperature decreased than normal the animal must be injected by saline& calcium therapy (I.V) slowly drop by drop.



b) Rabies:

It's an infectious viral disease affect all the animals and affected animals shows

Symptoms:-

- Salivation and off food
- The animal walk rapidly or run in one direction & bite anything in his way as other animals ,human, bones and stones,etc.
- Hydrophobia
- The animal make a distinguish sound each five mint
- الحيوان يصدر صوت نعيير مميز جدا له كل خمس دقائق , ويخاف من الماء
- The owner observe presence of dog near his animal or any other rabid animals& bit his animal

Treatment:-

1. Its hopeless case & must apply total condemnation to the affected animal
2. ويدفن دفن صحى بحيث تعمل له حفرة كبيرة على عمق 6 امتار ويوضع فيها طبقة من الجير الحى و ثم يوضع الحيوان ثم يغطى بطبقة كبيرة من الجير الحى وذلك حتى لا تصل اليها الكلاب المفترسة او الضالة فتاكلها وكذلك تصاب بالمرض وتزداد نسبة حالات السعار وبذلك نكون تلافينا خطورة المرض وانتشاره



2) Bacterial diseases:-

As: stomatitis & pharyngitis:-

Inflammation of mucous membrane of mouth and pharynx

Symptoms:-

- Off food
- Temp 39.5 – 40
- Salivation
- Inflammation of soft and hard palate & gum around the teeth

Animal affected: all animals at any age and any sex

Treatment:

- 1- Local irrigation with gentian violet or boric acid 4% or glycerin amnesia
- 2- AD3E injection for m.m healing
- 3- Anti-inflammatory:
 - If pregnant or lactating animal use tolfenamic acid or flunixin meglumine
 - If non pregnant or lactating animal you can use steroidal anti inflammatory
- 4- Broad spectrum antibiotic 3-5 day continuously



3) Other diseases :-

a) Foreign body in the mouth :-

أ- سفا التبن (القمح) : هي نوع من سنابل القمح والتي تعمل تقرحات بالغشاء المخاطي للفم والاشداق وتحت اللسان و تنغمس اجزاء التبن الرفيعة في هذه التقرحات مما يجعلها مؤلمة جدا للحيوان ويمنعه الاكل ويظهر اللعاب مدمم طوال اليوم

العلاج :

- ازالة السفا من الفم ويمنع الحيوان من اكل التبن لمدة 15 يوم
- تأكل العلف والنخالة فقط من اى عليقة خضراء
- يغسل الفم بالمواد المطهرة السابقة مثل :- boric acid4% , gentian violet or glycerin manesia
- الحقن ب : inject AD3E 10ml/animal (I.M)

ب- في بعض الاحيان تجد اجسام غريبة بالفم مثل مسمار او ابرة مغموسة في اللسان او تحت اللسان

العلاج : تزال المادة الغريبة المنغمسة في اللسان ويوضع غسول كما سبق

❖ ملحوظة :

في بعض الحيوانات وخاصة الخيول والحمير تجد في سقف الفم اجسام غريبة مثل :القوالح وبقايا اعواد الفول الناشف والتي بدورها توجد بالعرض في سقف الفم مما يعوق عمليه البلع ومضغ الطعام

- ويفتح المتفحص للفم تجد الجسم الغريب موجود , وبازالته بكل سهولة , وتغسل الفم كما سبق ونفس العلاج

ت- في بعض الحيوانات تاكل بطريق الخطأ مواد ملتهبة مثل (الصودا الكاوية او البوتاسا الكاوية) او البويات او اى مادة اخرى كاوية , مما يتسبب عنه التهاب الاغشية المخاطية للفم ونعالج كما سبق

ث- بعض الحيوانات نجد فيها بروز زائد في الضروس و الاسنان ويراعى بردها بالمبرد المخصص لذلك , وكذلك نجد بعض الضروس والاسنان غير ثابتة ومؤلمة جدا للحيوان عند الاكل وفي هذه الحالة يراعى خلعها فورا

II. Diseases causing lameness

1) Shoulder dislocation :

Its inflammation of the shoulder joint

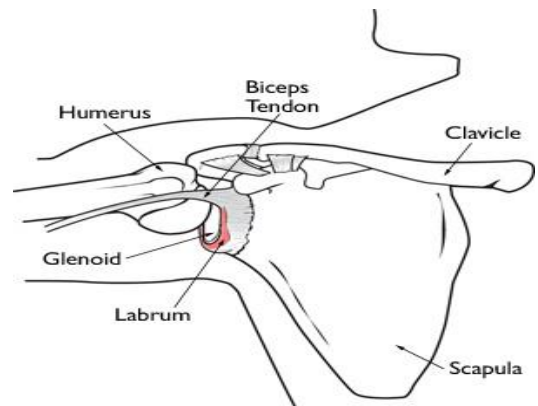
التهاب بمفصل اللوح نتيجة اصطدام المفصل بالطوالة المسلحة امامه او اصطدامه بجذوع الاشجار التي تربط فيها الحيوانات او ان الحيوان تزلق على الأرض الإسفلتية في الحظيرة التي يسكن فيها او انتقل عن جديد فيها

Symptoms:

- Lameness of the affected fore limb
- Swelling of the shoulder region
- May present elongation of the affected limb than the normal one
- تجد استطالة في الرجل المصابة المامية عن الرجل الأخرى السليمة
- Nodding by the head during the movement of the affected limb

Treatment:

1. Complete rest to the animal
2. Inject the diseased animal strong anti-inflammatory as dexamethasone, carprofen, ketoprofen or phenyl butazone “by recommended doses on the pamphlet of bottle”
3. Feed the animal on digestible food and inject vitamins & stomachic
4. Cold fomentation on the affected area in the first 3 days of the accident, then use iodine ointment



2) Hip dislocation :-

Occur due to:

(ا) تزلزل الحوض في الحظيرة الخرسانية

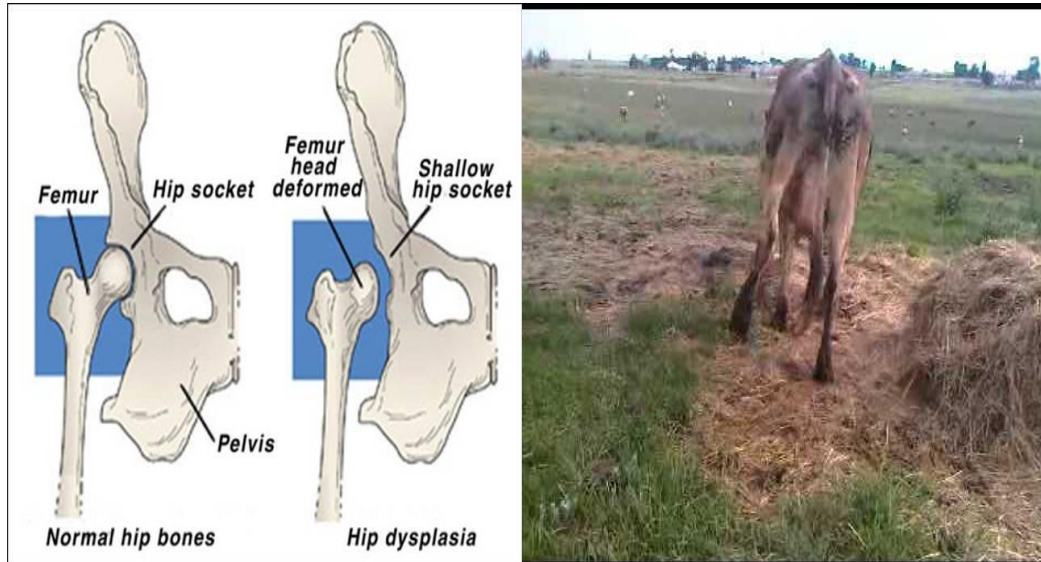
(ب) خبطة قوية على hip joint (strong trauma on the hip joint)

Symptoms:-

- Lameness of the hind limb & snatching by the hind affected limb in the form of half circle to outside
- Pain during movement

Treatment:-

- 1) Complete rest
- 2) Cold fomentation in the first 3 days & then use iodine ointment
- 3) Inject anti-inflammatory as previously in Shoulder dislocation :



3) Patellar luxation (عرق الأتس او الخطر) :-

This affection occur on the stifle joint of the hind limb of one or both hind limbs

Affected animals:-

Cattle, buffalo, equine and camel

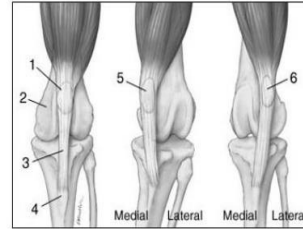
Symptoms of Patellar luxation:-

- Snatching of the hind limb
- بعد راحة تامة للحيوان تجد الحيوان ينتش للخلف اثناء الحركة للأمام مع ثني الحافر والزحف على الأرض بالرجل المصابة وتزول هذه الانتشة بعد الحركة سواء اول النهار او اخره
- وتظهر هذه الحركة اثناء رجوع الحيوان للخلف و اسقاط راس الحيوان تجاه الارض للأسفل و ثم تجد الحيوان لا يقدر على الحركة للوراء
- وتجد ان الرجل ممدودة للأمام ولا تستطيع الحركة للوراء

Treatment:-

1) Surgical removal or cutting of the medial patellar ligament

الوتر الداخلى جهة الضرع فى الأنتى او جهة الخصيتين فى الذكر



1. Patella
2. Femur
3. Patellar ligament
4. Tibial Tuberosity
5. Medial Luxation of Patella
6. Lateral Luxation of Patella

2/15/2015

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قطع الرباط الرضفي الأتسي
Medial patellar desmotomy

4) Foot canker:- (خراج الحافر او عفن الحافر)

By hoof examination, you can find snail or foreign body penetrating the hoof

Treatment:-

1. By using the hoof knife cleaning the hoof & remove the foreign body & then if you see pus(hoof abscess) has black offensive odor in this case ; make good cleaning by water to the hoof then by disinfectant to the abscess, then make bandage to the hoof
2. Make dressing daily to the animal

Medical treatment:-

1. Complete rest the animal
2. Anti-tetanic serum 2 ampoules/animal
3. Anti-inflammatory as dexamethasone or non-steroidal anti inflammatory
4. Anti-biotic as penicillin such as vitrocin, pen strep or pentomycine



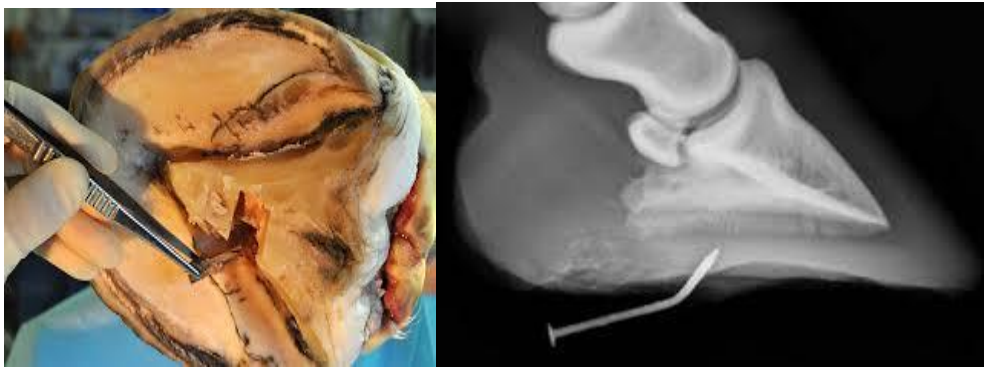
5) Foreign body in the hoof

As: - picked up nail & rubber band in claws

تجد ان قطعة بلاستيكية ملفوفة على واحد من الاظلاف وتظل مكانها حتى تعمل التهاب بالظلف

Treatment:-

1. Remove the foreign material & wash the affected area around the hoof by water then disinfectant and make a bandage
2. Inject anti inflammatory
3. Inject broad spectrum antibiotic



6) Tetanus:-

Bacterial disease caused by clostridia tetani toxin produced from anaerobic c.tetani bacteria

- Affected all animals specially equine, goat, sheep, cattle and buffaloes also affect human
- The main cause is the infection of the wound by gram positive clostridium tetani bacteria so called one of the wound affected disease
- Col.tetani anaerobic M.O

Symptoms:-

- Stiffness in the gait of the animal begin firstly in the two hind limbs & tail, then gradually to the flank region , then thorax, two fore limb, neck, then jaws
- Reflected third eyelids

- Animal be erected ears and locked jaws

N.B:-

- ✓ The presence of scar tissue on the surface of the wound give chance to the bacteria to multiply and secret toxins distributed to blood causing stiffness and other signs

Treatment:-

1. Firstly , remove the scar tissue from the surface of the wound , so the wound area become aerobic and bacteria can't live or secret toxins
- ✓ You can use H₂O₂ on the wound for 4 – 5 times daily to help the wound area to be usually aerobic not primate the bacteria to multiply
- ✓ Also you can inject H₂O₂ in a circle around the wound help also to produce aerobic area
2. Inject penicillin procaine (I.M)
3. Inject fluid therapy (I.V) by large amount to make bloody wash

تعمل غسل للدم لتخفيف كمية السموم بالدم وبعدها يتبول الحيوان كثيرا , و ينزل كمية كبيرة من السموم الموجودة بالدم في البول مما يقلل تركيز السموم في الدم

4. Inject large animal by 90,000 I.U anti tetanic serum as: 30,000I.U (I.V) & 30,000I.U(I.M) & 30,000I.U (S.C)
5. Inject muscle relaxant as magnesium sulfate and can inject xylaject (I.M)
by dose:- 1ml /400kg for cattle & 5-6 ml for equine
0.2 ml for sheep& goat according to its weight

** تحضر كمية 30 جم ملح انجليزى فى 300 سم محلول ملح ويحقن بالوريد نقطة نقطة حتى تعمل على ارتخاء العضلات وتسهل عملية الاكل والمضغ والحركة للحيوان

6. Inject Vit AD3E or E & selenium as immune elevator
- Repeat the treatment for 3-5 day continuously

Hygienic treatment:-

The animal feed only easily digestible food



III. Diseases causing swelling

There are some diseases causing swelling in the animals as:-

- 1) Edematous skin disease (E.S.D) التهاب الجلد الاوديى
- 2) Lumpy skin disease of cattle (L.S.D) التهاب الجلد العقدى
- 3) Three day sickness in emphysematous form
- 4) Abscess
- 5) Hematoma
- 6) Cyst
- 7) Hernia
- 8) bursitis
- 9) Lipoma
- 10) Bottle jaw in chronic fascioliasis
- 11) Pericarditis
- 12) Physiological edema
- 13) Traumatic pericarditis
- 14) Filariasis in cattle, buffalo and camel
- 15) Ascites

To make good D.D between them:-

- A) 3 day sickness:- mainly affect cattle and buffalo but causing subcutaneous emphysema (و الاكثر يصيب الابقار)
- B) L.S.D:- only in cattle causing erupted nodules on skin, lymph nodes as viral disease & also may in breast and four limbs present swelling
- C) E.SD:- the swelling scattered along lymph vessels and lymph nodes

The swelling nodules that may be small or elongated as in case of breast swelling

The swelling may be in abdomen of animal ventral surface

Treatment:-

1. Anti-inflammatory as cortisone preparation
2. Anti-histaminic as tripeleone, avil, allergamine or histacure
3. Broad spectrum antibiotic as ox tetracycline, pen strep, sulphonamides & trimethoprim or oxy long acting
4. Vit. AD3E or E.selinum as immune elevator
5. Cold fomentation

**** ملحوظة:-** يجب عدم عمل أى جراحات فى الغدد الليمفاوية وعدم فتح الخراييج الموجودة داخل القطيع او داخل الحظائر حتى نمنع انتشار العدوى فى باقى القطيع ،، ولكن يمكن دهان مركبات الزنك اولا وبعد ذلك دهان مركبات اليود

2) Lumpy skin disease (L.S.D):- (التهاب الجلد العقدي)

Its viral disease infect only cattle small and large animals and all sex

Symptoms:-

- There is swellings as nodules scattered along the skin only in cattle

**** ملحوظة:-**

- يكون المرض قليل الضراوة فى الابقار البلدى شديد الضراوة على الابقار الاجنبية المستوردة
- ويكون شديد الضراوة فى الابقار التى لم تصاب من قبل عن الابقار التى سبق لها الاصابة بالمرض
- يكون المرض ايضا قليل الضراوة فى الحيوانات التى سبق تحصينها وكذلك التى سبق تحصينها فى سنوات سابقة

- Temperature : 40 – 41 and still long time at high temperature
- Off food animal
- Swelling appear along the skin
- Salivation
- If swelling in joints some times

Treatment:-

- **Hygienic treatment:-**
- 1. Isolation of animal that show sign of death

2. Make rapid eradication of any insects in your farm e.g. insects, fillies or ticks as it help in disease transmutation

- **Medical treatment**

1. Anti-histaminic injection as tripelene, avil, allergamine or histacure
2. Broad spectrum antibiotic
3. Anti-inflammatory as: flunixin meglumine , adwifen, carprofen or ketoprofen
4. Cold fomentation several times daily

5. ويتم دهان جلد الحيوان بخليط من الخل والليمون لتغيير الوسط على جلد الحيوان للقضاء على الفيروس

N.B: you can make insect repelling away of animal body

تركيب المادة الطاردة للحشرات التى توضع على جسم الحيوان (زيت زيتون و خل وماء ورد)



Nodules of various sizes may occur over the entire body in LSD.



Lumpy skin disease: nodules elsewhere



Lumpy skin disease severely infected calf showing hundreds of skin nodules on almost all parts of the body (mortality in calves may reach 10 %)

3) Three day sickness:-

It's viral disease caused by Bovine Ephemeral Fever virus

Its arthropods transmitted disease affect cattle & buffalo but it dangerous more in foreign breeds of cattle

- This disease has 2 forms:

1) Musculoskeletal form:-

This form affects the muscle and joint & tendon >>> lead to lameness, recumbent and may cause arthritis & myositis & finally may cause hypocalcemia

2) Pneumonic form:-

This form is more dangerous than the other one, because the virus inter the alveoli of lung and cause inflammation which convert the thin wall of it to thick wall causing narrowing of it's lumen and the inflammatory exudate in the alveoli cause lowering of it's capacity for air, which lead to decrease level of oxygen and increase the level of carbon dioxide, this exudate lead to edema in lung leading to asphyxia "in this case found the mouth breathing" and the death occur

Symptoms:-

- Fever (40 – 42) sudden onset
- Off food
- Lameness, recumbent
- Rare nasal discharge & rare salivation
- Sub cutaneous emphysema
- Agalctia

N.B:

- differ from FMD: there is no lesion on the mouth or on the foot of animal

- differ from babesiosis: there is panting in 3day sickness that not found in the babesiosis

Treatment:-

1. Inject non-steroidal anti-inflammatory as flunixin meglumine (fenadyne)
2. Inject AD3E as an elevator for immunity
3. Inject anti-histaminic drug as histacure
4. Inject broad spectrum antibiotic as “draxin, nuflor, clamoxyle, tylosine” to prevent 2nd bacterial infection especially “ Pasteurella multocida”
5. Apply cold fomentation on the head of animal

After that, in the next day inject Vit. B-complex or neurovit as nerve tonic

Inject phosphorous preparation for ruminal stasis

You can inject ketoprofen after that

- If the temperature return to normal inject (I.V) calcium preparation to avoid hypocalcemia
- If the animal still recumbent after the viraemia (3 day) you can inject dexamethasone “one shot” with the ketoprofen for the arthritis

N.B:-

- It's forbidden to give the animal bronchodilator to avoid increase the oozing of fluid in the lung and lead to asphyxia
- If the animal in late stage and breath from mouth this mean that hopeless case and should be slaughter




Nasal discharge, drooling



Unable to rise

4) Abscess:-

That is swelling appear at any part of the body

- By exploratory puncture  revealing pus

Treatment:-

A: if ripened completely:-

1. Make cleaning , shaving and disinfected as previously discussed
2. At the lowest part of the swelling make an incision that permit good dressing and drainage of the abscess
3. Broad spectrum antibiotic that repeated daily till complete healing

B: if UN ripened abscess or partially ripened one:-

1. You can inject broad spectrum antibiotic to help rapid ripening to the hard part
2. Also you can use iodine preparation ointment 3-4 time daily to help ripening the abscess
3. Deal after its ripening as ripened abscess previously discussed

5) Hematoma:-

It's swelling due to trauma on the body of the animal especially the skin

- By exploratory puncture  blood

Treatment:-

A: in case of recent trauma:-

1. Cold fomentation needed to be applied on the hematoma
2. Haemoclar ® dressing to hematoma
3. Vit. K injection (I.M)

B: in case of old trauma:-


1. Make incision at the lowest part then evacuate the clotted blood and all content of the gap
2. Dressing the hematoma with betadine solution daily till healing

6) Bursitis:-

Its swelling that takes the joint and surrounding area

- Occur at any joint of the body especially those contact with surrounded hard things
- Bursitis has different names according to joint :-
- In elbow joint: capped elbow *in knee joint; knee bursitis

The cause: - directed trauma to the joint capsule

➤ By exploratory puncture  serous fluid

A: in acute bursitis or recent case:

1. Cold fomentation
2. Dexamethasone as anti-inflammatory (I.M) in non-lactating and non-pregnant animals & instead use tolfenamic acid or flunixin in pregnant & lactating animal
3. Dressing zinc preparation daily

B: in chronic or old bursitis; there several method for treatment

- Aspiration and injection method; aspiration to the swelling content of the swelling after complete cleaning , shaving and disinfection then inject hydrocortisone(بشرى) and crystalline penicillin (intra bursal injection) & this trial repeated every 3 days
1. Using iodine ointment 10% for painting the bursa daily
 2. If trail 1 or trail no 2 failed: convert it to abscess by using surgical incision in the lowest part and then deal with it as abscess
 3. In chronic bursitis that become fibrosed,,,SO, need surgical removal as following : (method of the surgical removal)
- Complete cleaning , shaving and disinfection
 - Line infiltrated anesthesia is applied by using lidocaine or procaine or lignocaine
 - Make elliptical incision
 - Reflect the skin & remove the fibrosed part

- Dressing the area, then suture the skin
 - Inject broad spectrum antibiotic daily
 - Inject anti-tetanic serum & make daily dressing on the open site
-

7) Lipoma:-

Remove the lesion completely, surgically in case of chronic



8) Bottle jaw:-

Its chronic disease or main chronic fascioliasis in cattle, buffalos, sheep& goat

- By using fecal sample \Rightarrow (+ve) fasciola infection
- If you make treatment, so, the lesion subsides gradually (علاج خاص بالفاشيولا)



9) Physical edema:-

Edema appear on the animal just before or during or after parturition by some day

تحدث للحيوان قبل او بعد الولادة مباشرة بايام (3 – 4يوم)

Symptoms:-

- Swelling in dewlap, udder, umbilical area and abdomen
- This swelling pit udder pressure & is cold by palpation
- This lesion subside after parturition directly

N.B:

- ✓ In this case the animal be in normal state in everything as eating, drinking, movement and excretion

العلاج بعد الولادة اذا لم تختفى الاعراض :

Diuretics & anti-inflammatory as dexamethasone as durazone or nsgaudan or mixture of diuretics as Lasix & dexamethasone



10)Traumatic pericarditis:-

In this case there is swelling of the dewlap & also cause jugular vein pulsation

- This swelling pit under pressure and be cold in palpation

Symptoms:-

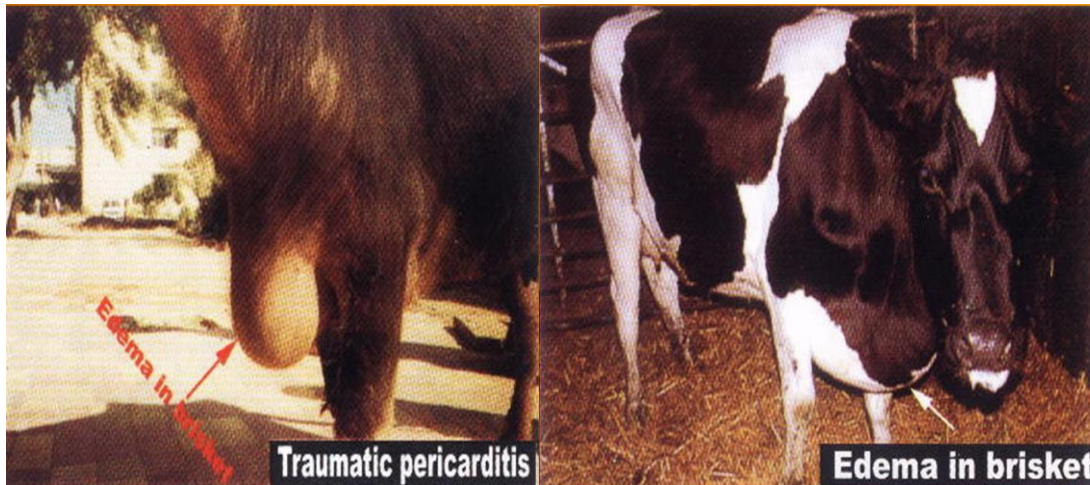
- Off food
- Sharp decrease in milk yield
- Animal can't move (arched back) as in normal stats as its movement disturbed and stiffness gait

Ensure your diagnosis by:-

- Stethoscope: hear muffling sound on the heart area
- Ensure presence of J.V.P “ jugular vein pulsation “
- From case history of the animal was ill from long period(10-30 day)
- Temperature was zigzag line in temperature

Treatment:

Hopeless case only need to slaughtered



11)Hernia:-

Its swelling appear only in the abdominal cavity or scrotum area or pelvic area as general

Types: Have two types:

- a) **Reducible hernia** (بالضغط عليها تغوص في البطن وتختفى)
- b) **Irreducible hernia** (بالضغط عليها لا تختفى)

Reducible hernia: the herniated part is movable

I.e. by pressure on it introduced to the abdomen easily

Irreducible hernia: the herniated part is fixed & by pressure can't be introduced

N.B:

- ✓ In reducible or irreducible ensure hernia by presence of hernia ring

Treatment:

Only surgical treatment is successful



.....

12) Filariasis:

It's one of blood parasites, but by the high temperature of the body of the affected animal that parasite escape from the blood to the limbs of the animal where the temperature is lower than blood which cause edema in the four limbs

Treatment:-

1. Anti-inflammatory
2. Anti-filarial drug as: ivermectine or duramectin... but here ivermectin must be repeated each 7 days instead of (14-21) day as in other parasites treatment
3. Vit. AD3E
4. If temperature elevated inject antibiotic (sulpha&trimethoprim) as sulphadoxin,borgalor nordin
5. Diuretics as Lasix or durazone



13) Salivary cyst:-

By exploratory puncture >>>>>>>> saliva

Treatment:-

1. Must evacuate the cyst gradually or make an incision in the lowest part of the cyst
2. Evacuate the content and dressing by using iodine preparation



IV. Diseases causing nervous manifestations

- 1) Thiamine deficiency
- 2) Hypomagnesaemia
- 3) Meningitis
- 4) Migration of larval of brain
- 5) Listeriosis
- 6) Acute babesiosis

1) Thiamine deficiency

It affects all animals: cattle, buffalo, sheep, goat and equines

Symptoms:

- Normal temperature
- Off food
- Staggering in gait
- Hyper aesthesia some times by any sound near the animal
- The animal move raising his head as looking to the sky
- The animal raising his fore limbs upward & Walk only in the hind limbs that is called “opthistonus form” as in strychnine poisoning”
- The signs appear at intervals

Treatment:-

Inject vit B-complex preparation that contain thiamine as antoplex injection, tri-b amp



2) Hypomagnesaemia:-

Affect all animals during feeding on barseem in winter and spring

Symptoms:-

- Normal temperature
- Nervous manifestation & tremors
- Sever hyper aesthesia
- Tremors may occur in muscle of the mandibles & the animal move his mandibles as if it chewing feed

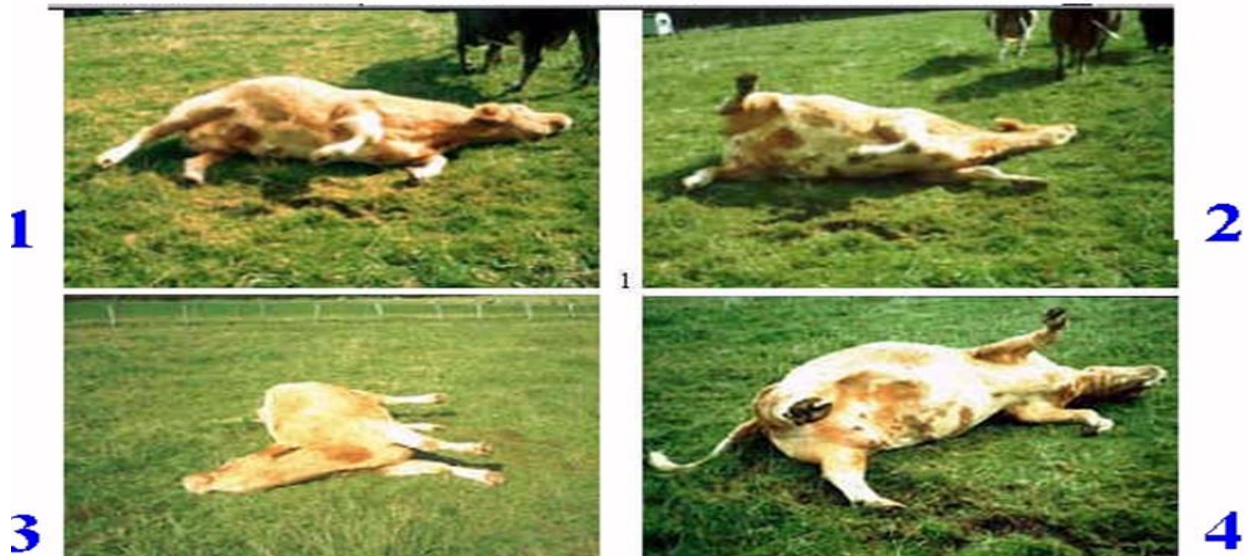
Treatment:

1. Inject magnesium with calcium preparation I.V slowly as cal bor mag or calmagose
2. Dissolve 5 gm. mag. Sulphate in 200 cm distilled water & inject it (I.V) solely or (s.c)

*repeat this step every day till disappearance of the signs

3. Inject vit. B-complex & vit. AD3E
4. Feed the animal in easily digested food

Hypomagnesaemic tetany



Convulsion in the limb + opisthotonus

3) Meningitis:- (الالتهاب السحائي)

The animal suffers inflammation in meninges of the brain

Symptoms:-

- Muscle tremors & over nervous signs
- Temperature : 40 – 41

ينتاب الحيوان حالة عصبية ويترنح و كأنه فى غيبوبة تامة , ويظهر عليه حركات عصبية بالرأس و الفم وكأنه يمضغ الاكل , ويلاحظ على الحيوان انه لا يرى ,

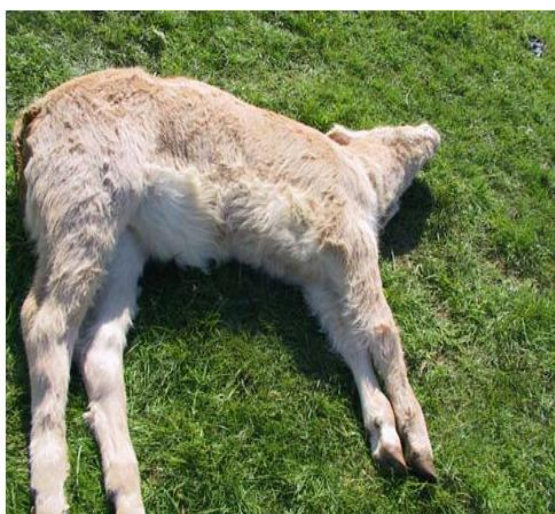
- Affect all animal species

Treatment:-

1. Cold fomentation on the animals head
2. Inject strong anti-inflammatory as flunixin meglumine, dexamethasone or tolfenamic acid
3. Inject broad spectrum antibiotic that penetrate blood brain barrier as florphenicol in dose 1ml\ 15kg(I.M) effect 48hr or 2ml\15kg(S.C) affect 96 hr.
4. Inject vit B-complex & vit AD3E
5. Feed the animal on easily digested food



Calves are blind and may show "star-gazing" behaviour



Seizures are seen in meningitis just before death

4) Nervous manifestation due to migrate of larvae in brain “oestrus ovies larvae in the brain “ (نغف الأنف في الأغنام)

Symptoms:

- Nervous manifestation
- Temperature is normal
- Off food
- Sometimes the animal vision may be disturbed

Treatment:

1. Inject ivermectine or duramectine or levamisole (لا يستخدم ليفاميزول في الماعز)
2. Instead of injection , you can use hapadex or allbendazol orally

5) Listeriosis “ circling disease”:-

It mostly occur in sheep, as the animal move around itself make circling

Symptoms:-

- The animal circle around itself
- The animal stop eating or drinking
- The circling of the animal be one direction as, the animal appear as being blind



Treatment:

1. Inject broad spectrum antibiotic that cross blood brain barrier as florphenicol preparation
2. Inject antipyretic & anti-inflammatory as flunixin meglumine or dexamethasone
3. Inject anthelmintic or give it oral anthelmintic
4. Inject vit B-complex & some vitamin as AD3E

6) Acute babesiosis:-

It is acute form of babesiosis in cattle and equine which cause death & nervous manifestation before death “small type of babesia”

N.B:

Acute babesiosis in equine cause:

- Sever colic & sweating
- High temperature 40
- Off food animal & end by sudden death

7) Zinc phosphide toxicity (سم الحفار)

تسمم بمبيد سم الحفار وهو بوردرة سمراء اللون تتضع على الذرة المجروشة غى حقول البطاطس لمقاومة الحفار

Symptoms:

- Sever convulsion
- Animal with history of eating zinc phosphide itself or crunched corn containing zinc phosphide

Treatment:

Inject one of these drugs: xylaject or nourazine or chlorpromazine HCL or comblene or rumbone

V. diseases causing colic

- 1) Urine retention
- 2) Constipation
- 3) Torsion
- 4) Intussusception
- 5) Organo phosphorus toxicity
- 6) Sand colic in equine
- 7) Strangulation
- 8) Abomasal displacement
- 9) Dystocia during late stage of pregnancy
- 10) Impaction

1) Urine retention

It is more presently in male animal as ram, kids, bull & camel

- Also in female animal can occur نادرا ما يحدث في الاناث

Causes:

- Due to deficiency of vit A
- Due to increased mineral in diet
- Heavy parasitism
- Drinking of polluted water

Increase mineral lead to stone in urinary tract& occlusion to the urethral process of ram and kids mainly occur in sigmoid flexure only

- حيث يحدث ترسبات للاملاح في ذكر الاغنام وذكر الماعز مما يؤدي النانسداد المجارى البولية او حبس البول جزئيا او كلياً , مما يؤدي الى ظهور اعراض ألم ومغص شديد على الحيوان

Treatment:

1. Surgical cutting to the urethral process containing the stone inside. Then, occur direct urination & revealing the colic signs so the animal return to its normal state

وإذا تكررت الحالة ممكن نعمل عملية تحويل البول من تحت الذيل

2) Constipation:-

It occur due to impairment of peristaltic movement (decrease peristaltic movement of the intestine), so the fasces remain inside the large intestine (rectum especially)

وهذه الحالة موجودة بكثرة في الخيول والعجول الرضيعة

Occurrence:-

- ✓ In equines (donkey, mules) & also in calves especially recent parturated

Treatment:-

1. Rectal enema
2. Inject Para sympathomimetic as adwigmine or neostigmine or physostigmine or acaprine

N.B:

- ✓ If the proper cause was nematodes as in colic and newly born calves, the animal need:

Piprazine citrate oral or levamisole injection 1 cm / 25 kg(S.C) or ivermectin injection 1 cm / 50 kg (S.C) or duramectin injection dectomax® 1cm/ / 50 kg (S.C) or (I.M)

Orally: paraffin oil: can be used in all animals to relive constipation in dose 1-2 kg/ large animal & 250 / calve

3) Organo phosphorous toxicity:-

The colic here present or occur due to:

- a) The animal eat diet with organo phosphorus compounds مثل الديازينون او التوكسافين المستخدم في رش الارض الزراعية
- b) The animal sprayed by highly concentrated insecticide as diazinone
- c) The animal eat green stuffs which sprayed by O.ph compounds to get rid of worms infecting as, cotton, green stuffs or fruits

Symptoms:-

- Colic: sever or mild according to dose of O.ph toxins taken
- Tremors
- Salivation

- Diarrhea

By examination: miosis in eye pupil

Case history: - exposure to o.ph

Treatment:-

1. Inject atropine sulfate as antidote 2-3 ml first
2. Inject vit AD3E 10 ml/ animal (I.M)
3. Inject calcium preparation
4. Wait about 30 mint & examine eye pupil
5. If meiosis still present, tremors, salivation ... repeat the dose of atropine sulfate
6. Complete as previously till the animal return to the normal state, ruminate again and the animal begin to eat slowly

N.B:

- ✓ If the animal take toxicity by skin spraying by insecticide so, you must wash the animal skin by water and soap several times
- ✓ You mustn't use any oils specially food oil or paraffin oil as, these oil help dissolving of toxins & increase toxicity on the animal
- ✓ After the animal return to the normal state from feeding, drinking, excretion, rumination& eye pupil by normal size

You must repeat the dose after 9 hr. as these toxins re-excreted again from rumen, liver, blood each 9 hr. يعاد تكرار الجرعة العلاجية بعد 9-10 ساعات من الجرعة الاولى وهكذا ,,,



4) Torsion:-

يحدث في الحيوانات العشار فقط وخاصة من 6 اشهر فيما فوق , وهو عبارة عن التواء في عنق الرحم

Types:-

- a) Pre cervical torsion “ more difficult” التواء قبل عنق الرحم
- b) Post cervical torsion التواء بعد عنق الرحم

العلاج :- استرجاع عنق الرحم لوضعه الطبيعي

By two methods:

1. Rolling by woody plate or stick
2. Caesarean section: it's the best & the safest method to the animal and the owner

5) Intussusception:-

- وفيه يدخل جزء من الامعاء في جزء اخر , ويحدث مغص شديد للحيوان, ويتوقف الحيوان تماما عن الاكل والاخراج
- ولا يزول المغص ابدا باستخدام مضادات المغص او التقلصات

العلاج :

فقط جراحيا حتى تنفادي حدوث غرغرينة للجزء المصاب من الامعاء

Surgical cutting to the affected part, then suture the cutted parts

6) Strangulation:-

- وهو التواء جزء من الامعاء على بعضه , ويعانى فيه الحيوان من مغص شديد , وايضا الحيوان يمنع الاكل والاخراج
- وكذلك لا يزول المغص باستخدام اى مضادات للتقلصات

العلاج : فقط جراحيا وفورا لمنع حدوث غرغرينة في الجزء المصاب

7) Sand colic:-

Occur mostly in equines living in dessert area, where sand collected in large intestine causing sever colic

Treatment:

1. Anti-spasmodic as scopiron or flunixin meglumine or buscopan amp(I.V) or dospa amp or spasmophen amp
2. Vit AD3E

3. Vit B-complex
4. Phosphorus preparation
5. Feed the animal only laxative food

8) Abomasal displacement:-

- Occur mainly in heavy producing animals either buffalos or cattle
- Occur mostly in the imported animal rather than the local ones

Symptoms:

- The animal don't defecate
- The animal with tempany either in right or left side
- The animal don't eat, don't move easily or don't move
- The animal with sever colic

وبالكشف تجد صوت الرنة تحت السماعة من الناحية اليسار او اليمين

Occurrence:-

- Occur mostly during period of exchanging feed stuff to animals , as. The animal is feeding on green stuff & you need to change to dry stuff
- Occur also after parturition

Treatment:-

1. Surgical section
2. Post operation : paraffin oil 2 litters orally & adwigmine injection & vit B-complex & phosphorus & laxative food

9) Impaction:

Occur due to feeding animal on large amount of carbohydrate as powder, crushed corn or leaves, then, the feed fermented in rumen 7 decrease the ruminal movement & end by sever colic

Treatment:-

1. Adwigmine or neostigmine
2. Vit B-complex

3. Phosphorous preparation
4. Oral paraffin oil
5. Sodium bicarbonate oral or laxative or bykodigest or any preparation contain sodium bi carbonate
6. Feed animal on laxative food

10)Dystocia:-

Colic in female animal due to difficult parturition, so cause colic

Causes:-

- Deflection in head & neck
- Flexion in the 2fore limbs or one of them
- Flexion in one or both hind limbs

العلاج :- بتعديل وضعية الجنين يتم التوليد بكل سهولة وبعد ذلك تزول اعراض المغص

N.B: it's preferred before interference, apply posterior epidural anesthesia

اذا تعذر تعديل الجنين او عظام الحوض ضيقة او الممر العظمى اقل من حجم الجنين يراعى عمل عملية قيصرية فورا

11)Tympany

Its cause due to gas accumulation inside the stomach or rumen

Types: - there are 2 types of Tympany

- a) Frothy tympany
- b) Free gas tympany

Excess gas accumulation makes a distention of the abdomen leading to sever colic

Treatment:-

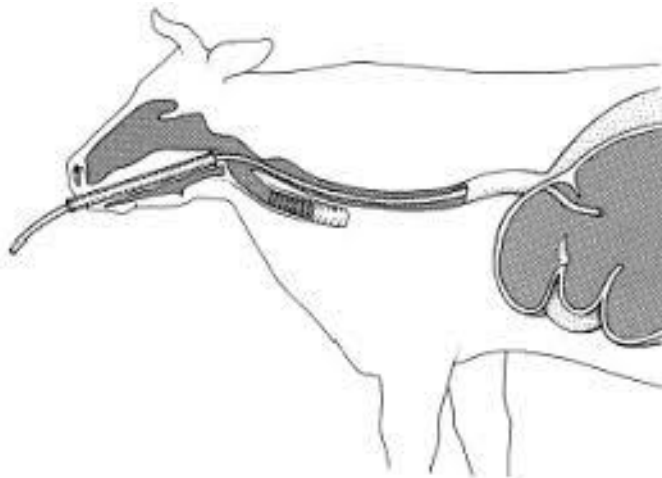
1. Convert frothy tympany to free gas tympany by dimethicone, blootryl or bloozal or mineral oil as paraffin oil
2. In free gas tympany : prefer to use stomach tube

Ω Stomach tube method:

- Its elastic long tube introduced from mouth cavity till rumen or stomach then move it in several direction in the rumen
- If the gas is huge amount , the gas evacuation must be in intervals, as if sudden evacuation occur, sudden hypotension occur to the animal
- Because in tympany , the blood concentrated in limbs, brain 7 by rapid evacuation the blood return to abdominal cavity rapidly from the brain of the animal leading to sudden hypotension

N.B:-

- ✓ Its preferred not to use needle or trochar & cannula in evacuation of gas from rumen as it cause local peritonitis in ruminating animals that lead to ruminal stasis after that recurrent tympany and adhesion of rumen with baritone (التصاق الكرش بالبريتون)



VI. Diseases causing bloody urine

- 1) Babesiosis
- 2) Hypo phosphatemia
- 3) Bacillary HB urea
- 4) Kidney form of E.S.D (edematous skin disease)
- 5) Trauma of urinary tract
- 6) Cancer of urinary tract
- 7) Physiological causes عندما ياكل الحيوان مواد مثل قشر البصل او لوز القطن او التسمم بكبريتات النحاس
- 8) Water intoxication

1) Hypo phosphatemia:-

- Its case caused in all animals especially buffaloes& cattle
- But it mainly occur in buffalo than cattle
- Also in pregnant animals than free ones

Causes:-

- a) Feeding the animal on barseem only for long time, as. In Egypt: the soil deficient in phosphorus, so barseem is low in phosphorus level& high in calcium
 - b) Feeding the animal on diet insufficient or disturbed & also feed barseem that have high calcium level & low phosphorus level
- ✓ So the ca:ph ratio is disturbed in blood

Symptoms:-

- Disturbance in the appetite of the animal especially in eating barseem as the animal begin to eat only leaves of barseem
- Then the animal refuse barseem eating so decrease in weight
- So production decline either milk production or sexual reproduction
- Staggering in gait
- If the case isn't treated early or neglected, the animal can't stand up & if stand can't move

- At late stage: blood vessels damages & R.B.cs ruptured due to disturbance in ca:ph ratio at its membranes leading to bloody urine with normal or sub normal temperature البول يظهر مثل عرق السوس المرغى " ذات اللون الداكن المميز بالرغوة "

Treatment:-

1. Prevent barseem in diet
2. Inject phosphorus preparation (I.M) or (I.V) as phosphonortonic®, phosphosal®, tonophosphan®, foliphos® or tonobject® So on.
3. You can also inject sodium mono basic or sodium di basic phosphate(60 gm. dissolved in 300 cm distilled water) & inject (I.V) drop by drop each 12 hrs.
4. Orally : sodium di basic phosphate or mono basic phosphate on diet or water

(100 جم: 250 جم) من احادى او ثنائى الفوسفات ولا توضع هذه المركبات على الردة لان لها طعم مميز يؤثر على الحيوان ويؤدى الى امتناعه الحيوان عن اكل الردة ايضا

5. Inject vit AD3E , vit D responsible for ca:ph metabolism in body
6. Inject ferric preparation as antoplex & equblex.. as, iron help in regeneration of R.B.Cs
7. Rectal backing : as continues backing to rectum 3-4 times daily not to occur sever constipation to the animal that may prevent the animal from eating

N.B:

- ✓ The hypo phosphatemia cause weakness in rectal opening so prevent defecion
- ✓ Its forbidden to give the animal any fluid therapy, as it increase haemodilation

2) Kidney form of E.S.D:-

The case occur after infection of the animal by E.S.D that may affect the kidney , causing kidney degeneration leading to excretion urine containing degenerated particles of the affected kidney , so the urine become dark brown viscous or slightly viscous

- ✓ In this case slaughtering is the ideal solution

3) Copper sulphate toxicity:-

The urine appear bloody due to eating large amount of copper sulphate above the normal limit

4) Physiological cause of bloody urine :-

- لان الحيوان ياكل كمية كبيرة من قشر البصل ولوز القطن
- لون البول احمر برتقالي او وردى ولا يؤثر على الحيوان

العلاج :

يعتمد على وقف تناول هذه المواد فتخفف الاعراض

5) Trauma of the urinary tract

- فى حالة الخبطة فى الجهاز البولى يظهر البول الطبيعى لكنه مختلط بالدم
- يتضح اذا تركت البول لفترة فتجد تجمع الدم فى اسفل الانبوبة تاركا بول نقي اعلاه

Treatment:

1. Cold fomentation on site of trauma if possible
2. Vit K injection
3. Calcium injection (I.V)

6) Cancer of urinary tract:-

- Found urine with large amount of blood not stop bleeding by anti coagulants
- So need slaughter as , it is hopeless case

7) Babesiosis:-

Its one of blood parasite disease affecting all animal cattle, buffalo, sheep, goat, camel, equine, dog and cat

- Another name : tick borne disease

As the disease occur due to biting the animal by tick carrying the intermediate host from other infected animal

نتيجة لدغ الحيوانات السليمة بالقراد الحامل للطور المعدي للمرض

- Disease is mostly serious in cattle, especially the imported one

يصيب الابقار سواء كانت مستوردة او خليط ولكنه يصيب الابقار الخليط بدرجة اشد من المحلى

Symptoms:

- Animal off food
- Fever 40- 41
- In case of sub-acute stage especially in equine, cause nervous manifestation ,sudden death
- Presence or absence of tick, as. Tike bite the animal then descend
- Bloody urine excreted لون العرق سوس وعليه رغوّة مميزة
- ✓ Foamy bloody urine
- ✓ Stenosis of anus, give pipe stony feces
- ✓ Icteric mucous membrane

Treatment:

A) Therapeutic treatment

1. Inject anti babesial drug as imidocarb, imizole or imidodel in dose 1ml\ 100 kg (I.M) or (S.C)
2. Inject anti-inflammatory as dexamethasone or flunixin meglumine or anti pyretic as vetragen , novacid, flustac or analgin
3. Inject oxytetracycline L.A 10cm\100kg (deeply I.M)
4. Inject vit AD3E
5. Inject tonics as vit B-complex & phosphosal or phosphorus preparation

B) Managemental treatment:

6. Use butex or any insecticide for getting rid of all external parasite in farm

N.B:

- ✓ Its forbidden to use fluid therapy as cause haemodilation

الحيوانات المخالطة للحيوان المصاب يجب التعامل معها بجرعة اميدوكارب وقائية

- ✓ As prophylactic dose by inject imidocarb (2ml\100 kg in tail fold)

VII. Diseases causing corneal opacity

- 1) Foreign body in eye ball or conjunctive
- 2) Trauma in eye
- 3) Conjunctivitis
- 4) Vitamin A deficiency
- 5) Inflammation of the eye ball
- 6) Entrobion or ectrobion of eye lashes
- 7) Pink eye
- 8) I B R
- 9) Theileriosis

1) Foreign body in eye ball or conjunctive

There is foreign body inside the eye ball or conjunctive

مثل سفا القمح او اى جزء من اعواد القمح والذرة او غير ذلك

So, only the signs subside by removing the foreign body

Treatment:-

1. Boric acid 2- 4 % dissolved in warm water & wash the eye by it
 2. Eye instillation by local antibiotic as oxytetracycline 5% or neomycin sulphate eye ointment or any local A.B eye drop
- 2) Trauma of the eye ball:-

Trauma occur mainly in only one eye

Causes:-

Due to hitting the animal eye by stick

Kicking the animal's eye by another animal

Fighting the animals together leading to trauma of the eye ball

Treatment:-

1. Cold fomentation
2. Local antiseptic as boric acid 2-4%
3. Local antibiotic
4. Inject broad spectrum antibiotic
5. Inject anti inflammatory
6. Repeat fomentation , local antiseptic& local antibiotic 3-5 days

3) Conjunctivitis:-

Its inflammation of the conjunctiva of both eyes, causing sever congestion of the conjunctiva of the eyes as in some diseases e.g. I B R & theileriosis

وبعلاج المرض الاساسى والعلاجات الموضعية السابقة تزول الاعراض

بعض الامراض التى تصيب العين مثل الرمد الصديدى والرمد الحبيبي وكلها تعالج بواسطة

Treatment:

1. Cold fomentation
2. Anti-septic as boric acid 2-4 %
3. Local eye instillation by eye drops or eye ointment
4. Inject broad spectrum antibiotic
5. Inject anti inflammatory
6. Inject anti histaminic as tripelene (5cm /100kg) (I.M)
7. Repeat the treatment 3:5 daily till signs disappear



4) Vitamin A deficiency:-

- Occur due to feeding the animal on imbalanced ration deficient in vit A
- Appear in both eyes

Treatment:-

1. Add vit A supplement on the ration
2. Inject vit AD3E (I.M) for long enough period

5) Entrobion or ectrobion of eye lashes:

تحتاج الى عمليات جراحية

6) Presence of eye lashes on the eye ball:-

يوجد بعض الرموش على كرة العين نفسها , ولذلك تحتاج عملية جراحية للعين وتزول هذه الرموش الزائدة وتخفى الاعراض

ولكن لا بد من استخدام العلاجات اللازمة بعد اجراء العملية

After care treatment:-

Cold fomentation & local anti-septic & local antibiotic & broad spectrum antibiotic and anti-inflammatory

7) Theileriosis:-

Its blood parasite affected all animals cattle, buffalo, sheep, goat, equine and camel

Highly effective on buffalo so called (الحمى المصرية)

Affect the lymphatic system and be in the lymph node

Symptoms:-

a) Acute form:-

- Fever (40 - 42° c)
- Off food
- Congestion of mucous membrane of eye
- Lacrimation
- Corneal opacity

b) Chronic form:-

- The animal cough early morning for 3-4 times , then disappear
- Pus in inner canthus of eye at early morning then subsided
- Animal refuse eating barseem & corns الحيوان يرفض اكل البرسيم والعلف ولكنه يميل الى اكل النواشف مثل قش الارز

Examination:-

- Blood sample from ear vein & stain slide by gems' stain or leishman stain
Koch's blue bodies in the RBCs



Treatment:-

1. Inject AD3E
2. Inject non-steroidal anti-inflammatory as flunixin meglumine
3. Inject long acting antibiotic as oxytetracycline L.A
4. Inject buparvaquone as noutalex , butalex or butaject) with dose 1cm/20kg (I.M) of the neck

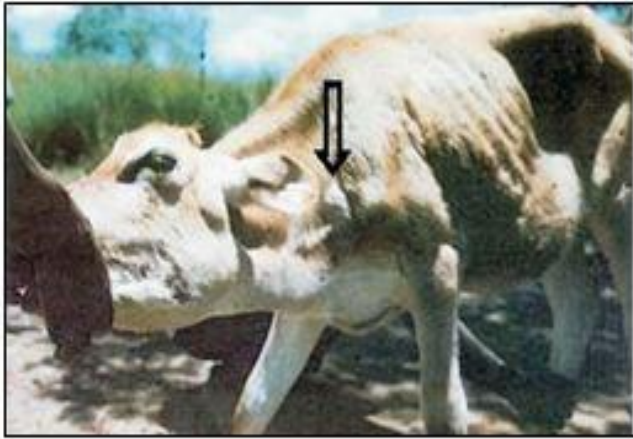
N.B:

- ✓ You can use one shot from buparvaquone in dose 1cm/15 kg
- ✓ or, inject butalex after 48 hrs. after normal dose
- ✓ Repeat inject AD3E , anti-inflammatory, anti-pyritic for 5 successive day

N.B:

- May repeat L.A antibiotic after 48 – 72 hrs.

- Inject dexamethasone intra conjunctiva
- Eye instillation (oxy+ dexta) or tobradoxin(human eye drop)
- Laxative food with cold fomentation on the head



**Swollen lymph node in a
theileria infected calf.**

VIII. Diseases causing coughing

- 1) Bronchitis
- 2) Bronchi pneumonia
- 3) Pneumonia
- 4) Lung worm
- 5) Drenching pneumonia
- 6) Shipping fever
- 7) Allergy due to bad ventilation
- 8) Allergy due to mixing of some drugs leading to hyperesthesia & coughing & swelling
- 9) Feeding on hot silage that is bad made

1) Bronchitis:-

Inflammation of bronchioles of the lung

Symptoms:-

- Animal is off food
- Coughing by auscultation to lung hear harsh sound

Treatment:-

1. Provide well ventilated place to the diseased animal
2. Inject non steroidal anti inflammatory
3. Inject an efficient antibiotic e.g. amoxicillin or gentamycin or nuflo or draxxin
4. Inject of anthelmintic drug as levamisole or albendazole orally for lung worm treatment
5. Inject vit AD3E or vit E& selenium preparation as immune elevator
6. Feed the animal on laxative food

2) Pneumonia:-

Inflammation of the lung parenchyma itself either including or not the bronchi or pleura

Causes:-

- Bacterial disease affect animal as , pasteurella & mycoplasma
- Viral disease as ,influenza virus & 3 day thickness pulmonary form

Symptoms:-

- Off food animal
- Difficult breathing
- Cough

Examination:-

- Temperature: 40 – 41
- By lung auscultation: harsh sound is heard

Treatment:

1. Inject non steroidal anti inflammatory
2. Inject broad spectrum antibiotic danocin, amoxicillin LA, nuflor, draxxin, synlux, tilmiject or pneumotac
3. Inject anti histaminic as, tripelene, histacure, avil ampoule
4. Inject levamisole or ivermectine for lung worm treatment
5. Inject vit AD3E or E& selenium preparation for immune elevator
6. Managemental treatment:
 - Provide well ventilated place to the animal
 - Provide laxative food to the animal
 - Complete rest the animal

3) Lung worm:-

It is migration of larvae in the lung as dictiocollus viviparous

Symptoms:-

- Coughing with protrusion to the tip of the tongue from the mouth of the animal

Examination:

- Normal temperature & normal appetite
- Harsh sound is heard in lung area

Treatment:-

1. Inject ucimisole & ivermectine preparation or dectomax or levamisole or any drug used for nematodes treatment



4) Drenching pneumonia:-

It is cause due to fault in drenching the animal any fluid direct intra trachea

اثناء تجريع الحيوان مع مسك اللسان فتدخل السوائل القصبة الهوائية الى الرئة بدلا من دخولها خلال المرئ الى الكرش

Symptoms:-

- Difficult breathing
- Off food animal & edema in the lung
- In advanced cases, cyanosis& asphyxia ending by death
- Also if the drenched fluid in large amount, asphyxiation and death occur

By animal examination:-

- Temperature 40 -41
- By lung auscultation: hear sound of fluid or water in lung area appear as if muffled sound

- History of drenching the animal any fluid & the animal cough severely during drenching

Treatment:-

1. Inject steroidal or non-steroidal anti inflammatory
2. Inject broad spectrum antibiotic
3. Inject anti histaminic as tripelene
4. Also inject Lasix as diuretic

N.B:

- Durazone preparation can be used as anti inflammatory & diuretic as the same time

5) Pneumonia due to bad ventilation:-

Presence of animal in bad ventilated place with air drafts & dusts causing hyperaesthesia of the lung of the animal

Symptoms:-

- Difficult breathing
- Decrease the appetite of the animal

Examination:

- Swelling scattered all over the body as lesion also including udder, teat, ear, vulva, around eyes, muzzle and all the face due to hyperaesthesia
- Normal temperature

Treatment:-

- Provide well ventilated place to affected animal away from dusty area
- Inject anti histaminic as tripelene till signs released
- Inject vit AD3E or E& selenium as immune elevator

- وإذا كانت الحالة سيئة جدا يستحسن حقن (cortisone injection) بعد التأكيد على المحاذير الخاصة من جهة الحمل والرضاعة

6) Coughing due to fault injection or mixing of some drugs:-

Symptoms:-

- Coughing
- Difficult breathing & sever dyspnea
- Also may be swelling or some lesions as hyper aesthesia

Treatment:-

- Inject anti-histaminic as tripelene
- Also can inject anti-inflammatory as dexamethasone 'cortisone'

N.B:

- ✓ You must not mix the drug in one syringe needle or the needle must be cleaned well by warm water several times between different types of drugs to remove any drug residue inside it or use disposable plastic syringe

7) Shipping fever:-

It is a fever occur due to transporting the animals in markets & expose the animals to air drafts so, the immunity decrease leading to activation of pathogenic microorganism as pasteurella in bronchi & lung leading to pneumonia

Symptoms:

- Coughing
- Off food
- Mucopurulent nasal discharge
- Fever: 40- 41
- History of recent buying the animal from day till two weeks

Treatment:-

1. Injection non-steroidal anti-inflammatory as tolfinamic acid or flunixin meglomine

2. Inject vit AD3E or E& selenium as immune elevator
3. Inject broad spectrum antibiotic as danocin, tylosine, amoxicillin, draxxin, tilmiject or pneumotac
4. Feed the animal on laxative food

8) Cough due to feeding the animal on silage

Symptoms:-

- Cough
- Normal or decreased appetite
- Normal temperature or fever

Treatment:-

1. Prevent silage from animal diet
2. Inject tripelene, histacure, or avil as anti-histaminic
3. Feed the animal any other food rather than silage
4. In case of fever: inject broad spectrum antibiotic as danocin. Draxxin, tylosine, amoxicillin L.A & inject non-steroidal anti-inflammatory

IX. Diseases causing diarrhea

- 1) Bovine viral diarrhea
- 2) Enteritis 'bacterial disease'
- 3) Parasitic diarrhea
- 4) Dietetic diarrhea

1) Bovine viral diarrhea B.V.D

It is viral disease affect all small animals leading to diarrhea

Symptoms:-

- Off food animal
- Diarrhea: may be watery & after the end of defecation there is clotted blood” large amount as one clot”
- Fever 40- 41

Treatment:

1. (I.V) or (S.C) fluid therapy as normal saline with dextrose 5% or ringer saline by 2% from the body weight of the animal
2. Inject sulphonamide & trimethoprim preparation as sulphadoxine, borgal, colitrim or nordine
3. Inject non-steroidal anti-inflammatory
4. Inject E& selenium or AD3E
5. Oral drug as sulfatrim tablets, synalux tab or diarrhea stop

2) Enteritis:-

Inflammation of the mucus membrane of the intestine leading to diffuse diarrhea

Symptoms:-

- Off food animal

- Profuse watery diarrhea, semi solid or watery or mixed with blood faeces

Causes:-

- E-coli, salmonella, shigella or any enterobacteriaceae micro organism
- May be protozoal cause as in case of cryptosporidia in small animal < 20 day old
- Acute fascioliasis

Treatment:-

1. Fluid therapy to compensate the loss in the fluid & electrolytes of the body by 2% of the animal body weight
2. Inject non-steroidal anti-inflammatory as tolfenamic acid or flunixin meglumine
3. Inject a sufficient antibiotic as sulphonamide, sulphadoxine, borgal, nordine or nuflo or danocin Etc.
4. Inject AD3E as immune elevator
5. Local or oral antibiotic in non ruminating animal or suckling small animals as synalux tablet, sulphatrim tablet

N.B:-

- It's forbidden to use tannic acid as it affects liver badly

- It's forbidden to use starch as it considered as susceptible media for bacteria multiplication and so increase the infection

6. If the cause of enteritis is parasite infestation you need to treat the proper cause either fasciola , nematodes or cestode by the effective anthelmintic
7. If the cause was protozoal infection as coccidian, cryptosporidia (present in 90% of small animal less than 20 days old which suffer from gastro enteritis)
8. Coccidian infect the animal less than 10 month age
9. The animal must take phosphorus to increase metabolism
10. In cryptosporidia the treatment: flagyl or kapect or diakan syrup & amprolium HCL
11. The other drugs needed for treatment of gastro enteritis as discussed before

X. diseases causing recumbence

- 1) Hypocalcemia
- 2) Hypoglycemia
- 3) Fracture of vertebral column
- 4) Paralysis of hind limb
- 5) Ketosis
- 6) Internal bleeding
- 7) F.M.D
- 8) Three day thickness
- 9) Arthritis
- 10) Lumpy skin disease
- 11) Acidosis
- 12) Hydropsy
- 13) Enterotoxaemia due to :
 - a) Acute mastitis
 - b) Acute pneumonia
 - c) Acute metritis

1) Hypocalcemia:-

Its occur during the late stage of pregnancy in cattle & buffalo , one or tow weeks before or after parturition

- In this case , the calcium level of blood decrease than normal level "8-12mg/ml"

Forms of this case: 4 forms

- 1- In this case, the animal post parturition:: eat , drink, move normally, but after eating it sleep or recumbent directly

- 2- The animal in this case can't stand up except if some one hit it & it stand up, eat, move slowly or tend to sleep directly on the land
- 3- The animal conscious, feel with surrounding , can't stand up, eat very slowly or stop eating
- 4- The animal in this case, sleep & put his head on the flank & do not feel the surrounding & appear as if deep sleep or entering in coma& can't feel if you hit it or if you move around it

Treatment:

1. Inject calcium preparation as cal bor mag, cal ma dex, calcicure, or cal d mag & injected slowly drop by drop (I.V)

N.B:

- The dose is calculated after giving the animal the first 500 ml by 1cm/kg as general

If the animal stand after it , defecate & urinate... so, your animal return again to the normal blood level of calcium

1. If animal still recumbent you must complete the injection by extra calcium saline till the animal stands up
2. Inject vit AD3E as vit-D help calcium resorption in bone & help in maintain ca:ph. Ratio in blood
3. Inject (I.V) dextrose saline 25% 3-5 bottles drop by drop to avoid hypoglycemia also
4. If you in farm with presence of some cases that previously showed signs of Hypocalcemia, so you must add magnesium sulphate to the diet of pregnant cows from seventh month of pregnancy by 50 gm. at morning & 50 gm. at the afternoon diet till parturition



2) Ketosis(hypoglycemia):-

In which the decrease of the ration or decrease of carbohydrates in the ration cause the animal body to make catabolism to the fat restore present

- The catabolism of fat result in ketone bodies in large amount & so by examination of the diseased animal you smell rotten apple odor from animal mouth 7 so , confirm your diagnosis

Occurrence:-

Occur mainly in late stage of pregnancy

Signs:-

- The animal recumbent & can't stand & refuse eating
- The eye pupil is mydriatic as in hypocalcemia

Treatment:-

1. Inject glucose 25% (I.V) drop by drop bottles to the adult l;arge cow
2. Give propylene glycol orally
3. Repeat the glucose source for 4-5 days

3) Paralysis of pelvic plexus of hind limbs:-

- in which the animal can't stand on the hind limbs
- This is hopeless case need slaughter

4) Fracture of vertebral column:-

- In which by putting your hand on the vertebrae beginning with coccygeal vertebrae till lumbar vertebrae, you will find the fracture obvious between vertebrae and the fractured vertebrae are found elevated or lowered from the level of vertebrae neighboring it & the sense is absent in both limbs
- This is hopeless case need slaughter

5) Internal bleeding:-

- تحدث عادة بعد العمليات الجراحية
- او حيوان ياكل سم فئران بكمية كبيرة
- الحيوان ياكل نبات اخضر مثل الرجلة او الورييح او الدراوة الصغيرة اقل من 45 يوم او اقل من 60 سم طول
- يحدث نتيجة خبطة شديدة للحيوان في منطقة البطن او القلب خاصة في الحيوانات الصغيرة
- The eye pupil is mydriatic

Treatment:-

1. Vit K injection (I.M)
2. Calcium injection (I.V)

6) Enterotoxaemia

- Occur due to neglected treatment in cases as:-
 - a) Acute mastitis
 - b) Acute metritis
 - c) Acute pneumonia

a) Acute mastitis:-

Cause swelling of the udder or in one or two quarters only of the animal

- The cardinal signs of the inflammation are obviously present as hotness, redness, painful and loss of functions
- The milk yield is very scant
- The milk color as serous fluid is yellowish colored

Signs:-

- Off food animal
- In early stage: temperature be 40- 41 & in late stage tem. Be normal
- Salivation & sunken eyes

- Congestion of mucous membranes
- The ears are dropped ventrally or lowered

Treatment:

1. Cold fomentation on the head, udder
2. Zinc oxide ointment on the udder
3. Broad spectrum antibiotic as danocin
4. Inject anti-histaminic as tripelene or histacure
5. Inject anti-endotoxin drug as flunixin meglumine, tolfinamic acid or meloxicam
6. Inject large amount of normal saline (I.V) to make bloody wash to toxins present in the blood

b) Acute metritis:-

It occurs after parturition mainly those with dystocia, occur pollution to the uterus & infection of the uterus

Signs:-

- Off food
- Staggering in gait
- Congestion of mucous membrane
- Stiffness of the gait
- Fever 40 -41 temperature

Treatment:-

1. Injection anti-endotoxin drugs as finadyne or adwifen
2. Broad spectrum antibiotic
3. Local uterine irrigation by oxytetracycline
4. Oxytocin injection

5. Anti histaminic as tripelene
6. (I.V) large amount of saline to make bloody wash

c) Acute pneumonia:-

Symptoms:-

- Temperature 40 -41
- Coughing , off food
- Congestion of mucous membrane
- Harsh sound in lung auscultation

Treatment:

Previously discussed

7) Three day sickness

8) F.M.D

9) L.S.D

} are previously discussed

10)Acidosis & acidemia:

Symptoms:

- If acidosis only: the animal may still stand with tympany due to acid accumulation & gas in rumen
- History of feeding carbohydrate rich diet to the animal, then the animal drink sufficient amount of water
- Normal temperature or hypotension
- Ruminal stasis

- Acidemia: the lactic acid absorbed from rumen, distributed to the blood that called “acidemia”

Signs of acidemia:

- It advanced case from acidosis so the animal is recumbent, severe tremor, can't move & if you try to move the animal the animal appear as if anesthetized or called drowsiness state
- Off food animal
- Temperature is normal
- Hypotensive animal or be normal sometime

N.B:

- ✓ Blood is viscous as molasses viscosity so animal don't urinate

Treatment:

1. Stomach tube to evacuate the ruminal content “rich in acid”
2. Inject isotonic saline” sodium bicarbonate” drop by drop (I.V) till the animal urinate & so, you sure the blood viscosity return to normal viscosity & the kidney can filtrate the blood so the blood PH become natural
3. Sodium bicarbonate solution given orally “ the dose depend on the amount of acidic food eaten by the animal
4. Laxative as laxative
5. Tonics as foliphos, phosphofort or phosphosal, vit B-complex & vit AD3E to elevate animal immunity
6. Feed the animal on laxative food only & green fodders is preferred

N.B:

It's forbidden to give the animal dextrose saline, as it contain glucose which by metabolism end into acids & so increase the acidity of the blood

11)Hydropsy:-

Its accumulation of large amount of fluid around the fetus that become stunted in growth

- The size of abdomen is increased till be at huge size
- It occur at late stage of pregnancy

Cause;

- Unknown: but may be due to renal degeneration of ftus kidney so. The fetus die and the fluid accumulated around it gradually

Treatment:

1. Indication of parturition
2. You can also apply small incision as in seat of cesarean section

XI. diseases causing abortion

1) Bacterial diseases:

- a) Brucellosis B) Listeriosis c) campylobacter

2) Protozoal diseases:

- a) Trichomoniasis

3) Viral diseases:

- a) 3 day sickness b) equine herpes virus 1

4) Other causes:-

1) Brucellosis:

Highly contagious zoonotic bacterial disease caused by bacteria of the genus brucella and is characterized by abortion, retained placenta, and to lesser extent, orchitis and infection of the accessory sex gland in male


- The microorganism affected all animals & all species & all sexes and human
- The disease affects all animals and leads to abortion of pregnant more than 6 months of pregnancy

Cause: brucella abortus

Treatment:

Have no treatment in animals

N.B:

- this microorganism present in fetal fluid & fetal membrane and fetus but can be diagnosed by using blood sample  +ve result

And the sample taken after abortion by “21 -30 day”

- 90% of pregnant heifers infected, abortion occurs & 10% only by normal birth, but these affected animals which aborted at first parturition will parturite normally, but 10% only from the will abortion occur

2) Other causes:

- a) Rough manipulation as in faults or rough manipulation in case of rectal examination which separate the fetal membrane & lead to death of fetus
- b) Using of dexamethasone drugs more than on injection after 5 –6 month of pregnancy
- c) Fault injection of prostaglandin at first 4 month of pregnancy
- d) Rough manipulation during pregnancy diagnosis of mare
- e) Fault of injection of estrogen in pregnant animal

XII. Diseases causing sudden death

1) Bacterial disease:

Clostridia disease

2) Protozoal diseases:

As sub-acute form of babesia in equine & cattle

3) Viral diseases:

F.M.D in case of SAT2 serotype infection form” tiger heart”

- Tiger heart : necrosis of the muscle of heart and appear in post mortem white lines & red lines of the venereal heart

4) Other cause:

a) allergy” acute form”

b) HCN poisoning: in which the animal eat of plant rich in HCN as immature plants

مثل الرجلة والدراسة الصغيرة قبل 45 يوم واقل من متر فى الطول ونبات فراخ ام على ونبات الزربيح

c) warfarin poisoning:

يسمى سم الفحار وهو سم اسود اللون يرش على مجروش الدرة فى مزارع البطاطس والذى ياكله الحيوان بطريق الخطأ مما يتسبب عنه موت مفاجئ نتيجة نوبات عصبية

d) Acute tempany:

مثل : اكل الحيوان للبرسيم الصغير والمندى وكذلك فى حالات انسداد المرئ باى بطاطس او بطاطا او برتقال (esophageal shock)

e) Fault of injection of high tetr of calcium (I.V) which cause tachycardia then bradycardia and lead to cardiac arrest then death

f) Levamisole injection in goat lead to sudden death



مع خالص تحياتى

دكتور / محي اسماعيل

