

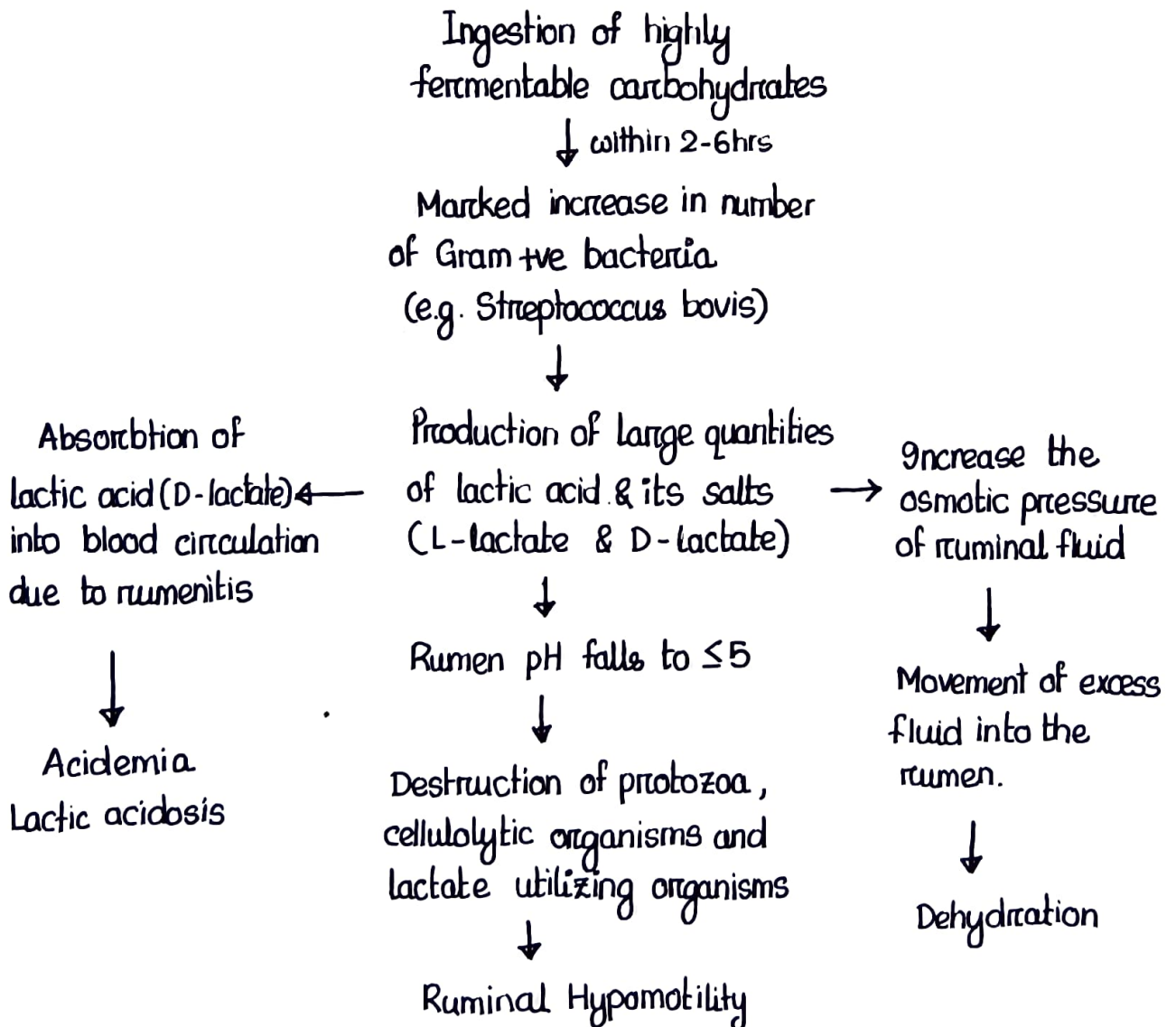
ACIDOSIS
GRAIN OVERLOAD

ETIOLOGY -

Accidental access to large quantities of readily digestible carbohydrates, particularly grain.

- Ex. ① Rice, wheat, Corn, Barley
② Leftover food in home/after party/picnic
③ Fruits (Apple, Grapes etc.)
④ Vegetables (Potato, Sugar beets etc.) etc.

PATHOPHYSIOLOGY -



SYMPTOMS -

Onset of signs is shorter with ground feed than with whole grain.
Severity increases with amount eaten

Mild Form

- ① Enlarged rumen, abdominal pain (belly kicking)
- ② Ruminal Hypomotility
- ③ Anorexia. Just after engorgement animal may take water, but once ill
- ④ RT - 98°F to 101°F (below normal)
In hot weather RT may reach upto 106°F .
- ⑤ Shallow & rapid respiration (upto 60-90 breaths/min)
- ⑥ Tachycardia
- ⑦ Feces
consistency - soft to liquid
colour - yellow/tan
odour - sweet sour
- ⑧ Dehydration - 4 to 6%
- ⑨ Laminitis

Severe Form

- ① Enlarged rumen
- ② Ruminal atony
- ③ Anorexia
- ④ Ballotement & auscultation of left flank - fluid splashing sound.
- ⑤ Tachypnoea
- ⑥ Severe Tachycardia
- ⑦ some animals - recumbent
some animals - staggering
others - stand quietly
- ⑧ Palpebral reflex - sluggish to absent.
Pupillary light reflex - slower than normal
- ⑨ Dehydration - 10-12%
- ⑩ RT - below normal
- ⑪ Diarrhoea

DIAGNOSIS -

- ① Clinical Signs & History
- ② Ruminal pH < 5.5
- ③ Excessive grain in feces

DIFFERENTIAL DIAGNOSIS -

- ① Parturient Paresis - No diarrhoea, No dehydration, Bradycardia
- ② Peracute coliform Mastitis - Fever, Inflammation of mammary gland
- ③ Acute Diffuse Peritonitis - Fever

TREATMENT -

Mild Cases

- ① Restricting water intake for 18-24hrs.
- ② Magnesium Hydroxide
500g/450Kg BW
added to warm water,
pumped into rumen &
mixed via kneading the flank
- ③ Oral antacids can be helpful
- ④ Systemic alkalyser
 - a) 2.5-5% NaHCO_3 IV
500ml - 1L bolus
followed by
1.3% NaHCO_3 IV
@ 150ml/Kg
 - b) 7% NaHCO_3 IV
200 - 500ml
- ⑤ Thiamine (for lactate mgmt.)
@ 5-10mg/Kg IM or slow IV
- ⑥ IV fluids to correct dehydration
- ⑦ Procaine Penicillin G - to avoid bacterial rumenitis

Severe Cases

- ① Rumenotomy
↓
Rumen lavaging to empty the content
↓
Rumen inoculation 3-8L for
(Fresh Ruminant Fluid) adult
- ② Systemic alkalyser
 - a) 5% NaHCO_3 IV
@ 1L/90Kg BW
followed by
1.3% NaHCO_3 IV
@ 1L/7.5Kg IV
- ③ Thiamine @ 5-10mg/Kg IM
or slow IV
- ④ Liver extract + B complex
injection
- ⑤ Aggressive fluid therapy
to correct dehydration.
- ⑥ Procaine Penicillin G - to avoid
bacterial rumenitis