



NANAJI DESHMUKH PASHU CHIKITSA
VIGYAN VISHWAVIDYALAYA



CERVICO- VAGINAL PROLAPSE

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INTRODUCTION

- ⦿ **Prolapse literally means falling down or downward displacement of a part from its normal anatomical position**
- ⦿ **Usually seen in older cows when tissue around birth canal relaxed during the later stages of pregnancy**
- ⦿ **Types:**
 - Vaginal prolapse**
 - Uterine prolapse**



Synonyms

- ⦿ Bearing trouble,
- ⦿ Red bag,
- ⦿ 'Showing the rede'
- ⦿ 'Throwing the rose'
- ⦿ 'Pushing out the button'
- ⦿ Hindi- Deh Nikalna, Ang Nikalna



INCIDENCE

- Typically looks like a pink mass of tissue about size of large grapefruit or volleyball.
- Part or whole of vaginal wall displaced in such a way that its mucosa is visible at vulval lips.
- Cows- usually Lat months of gestation
- Occasionally - 4-5 months of gestation
- Few cases- after parturition
- Buffalo- highest frequency
- Ewe and other domestic animals- a few weeks prior to parturition
- Female dog- common at the time of estrum

OCCURRENCE

- ① **All over the world**
- ② **Seen in mature females in last trimester of pregnancy**
- ③ **Young , non pregnant fatty heifers**
- ④ **Common in stabled than pastured animals**
- ⑤ **More common in pleuriparous animals**

ETIOLOGY

- **Hereditary predisposition**
- **Increase in intra-abdominal pressure**
 - **↑ size of pregnant uterus**
 - **Intra abdominal fat**
 - **Rumen distention**
- **Old age**
- **Endocrine imbalance (estrogen)**
- **Cystic ovarian degeneration**
- **Feeding of old mouldy corn & barley**
- **Deficiency of Ca & disturbed Ca :P ratio**
- **Constipation with difficult bowel movements**
- **Urinary infection, vaginal injuries**
- **Deposition of fat in perivaginal space**

CLINICAL SIGNS

Depends on degree & duration of prolapse

- ⦿ **Tenesmus : continuous or intermittent**
- ⦿ **Attempts at frequent urination & defeacation**
- ⦿ **Anorexia**
- ⦿ **Varying degrees of prolapse according to:**
 - Size of prolapse**
 - Involvement of organs other than vagina**
 - Length of time for which prolapse has been present**

CLASSIFICATION

- ◎ **Simple/1st degree** : Vaginal mucosa protrudes from vulva when cow is recumbent but disappears when cow stands
- ◎ **Moderate/2nd degree** : Protruding vaginal mucosa remains visible even when cow stands; cervix not visible
- ◎ **Severe/3rd degree** : Vagina protrudes & cervix is visible

Simple/1st degree :

- ⊙ Part of vaginal wall at vulvar lips in the form of a large reddish swelling**
- ⊙ Uterus & bladder not displaced**
- ⊙ Superficial erythema & erosion of vaginal wall**
- ⊙ Appears pale pink, moist, smooth, glistening**
- ⊙ Prolapse appear and disappear as animal lies down and stands up respectively**

Moderate Prolapse/2nd degree :

- ◎ Bladder or intestine become involved in prolapse & get trapped in pelvis**
- ◎ Vaginal prolapse is big in size**

Rubbing with tail, ground, faeces, urine



severe irritation



more painful, expulsive efforts



Increases both size of prolapse & involvement of other organs

Moderate Prolapse/2nd degree :

- ⊙ **Listless and uneasy**
- ⊙ **Grazes little**
- ⊙ **Separates herself from herd**
- ⊙ **Trapping of intestine → signs of intestinal obstruction develops → strangulation ensues**
- ⊙ **Bladder within prolapsed vagina → occlusion of urethra → becomes filled & enlarged → rupture**

Moderate Prolapse/2nd degree :

- ⊙ Exposed vaginal mucosa becomes severely ulcerated & dried**
- ⊙ Blood stasis, disturbance in venous return & edema pale pink → deep red → blue → black (severe case)**
- ⊙ Perforate with necrosis leading to peritonitis or to rapidly fatal hemorrhage**

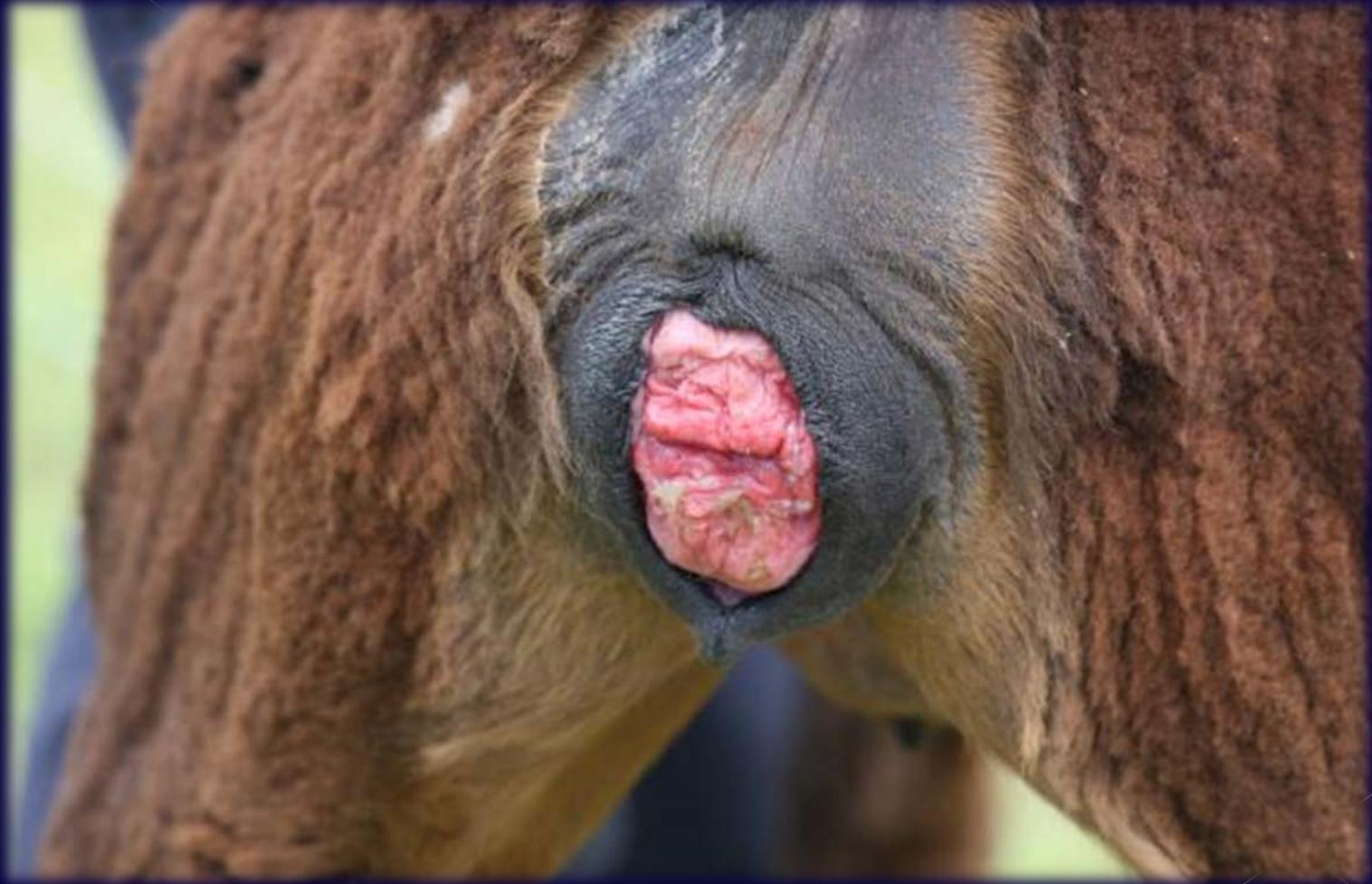
Severe Prolapse/3rd degree prolapse :

- ① **Most severe stage**
- ② **Uterus & cervix pushed so far caudally that cervix appears at vulval lips**
- ③ **Bacterial liquefaction of cervical seal (If pregnant)**
- ④ **Establishment of infection inside the uterus**
- ⑤ **Fetal death & abortion occur several days after correction**
- ⑥ **Fetus invariably becomes emphysematous**

Prognosis:

- ⦿ **Depends on degree of prolapse & time of handling case.**
- ⦿ **Partial : good**
- ⦿ **Complete & long time neglected cases : bad.**

1st DEGREE VAGINAL PROLAPSE IN COW



Mild Cases / 1st Degree Supportive Therapy

- ⊙ **Calcium & phosphorus therapy is also given**
- ⊙ **Progesterone therapy- 500 mg of progesterone
I/M**
- ⊙ **Inj. Meloxicam**
- ⊙ **Antihistaminic**

MANAGEMENT OF PROLAPSE

Based on three principle

- 1. Reduction**
- 2. Reposition**
- 3. Retention**

MANAGEMENT OF PROLAPSE

Reduction

- ⦿ **Application of hygroscopic substances to reduce size such as**
 - Cold alum solutions**
 - 50% dextrose**
 - Magnesium sulphate**
 - Popin spray (HERBAL)**
 - Prolapsin Powder**
- ⦿ **Lubrication with non irritant liquid or jellies.**
 - Glycerine (provides lubrication, reduces congestion & edema by osmotic action)**
 - Anesthetic jellies**

MANAGEMENT OF PROLAPSE

- ⦿ **Raising prolapsed mass to level of labia thereby relieving pressure on urinary meatus & immediate evacuation of bladder**

MANAGEMENT OF PROLAPSE

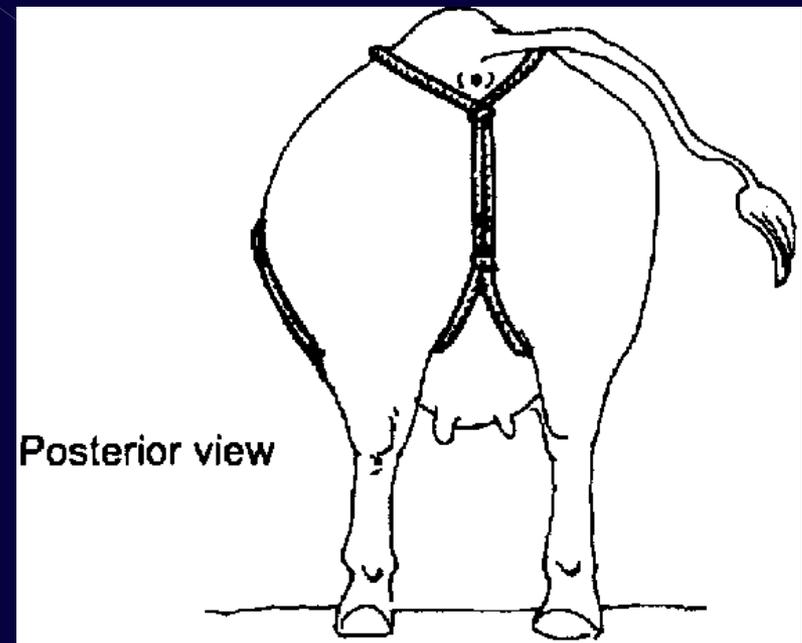
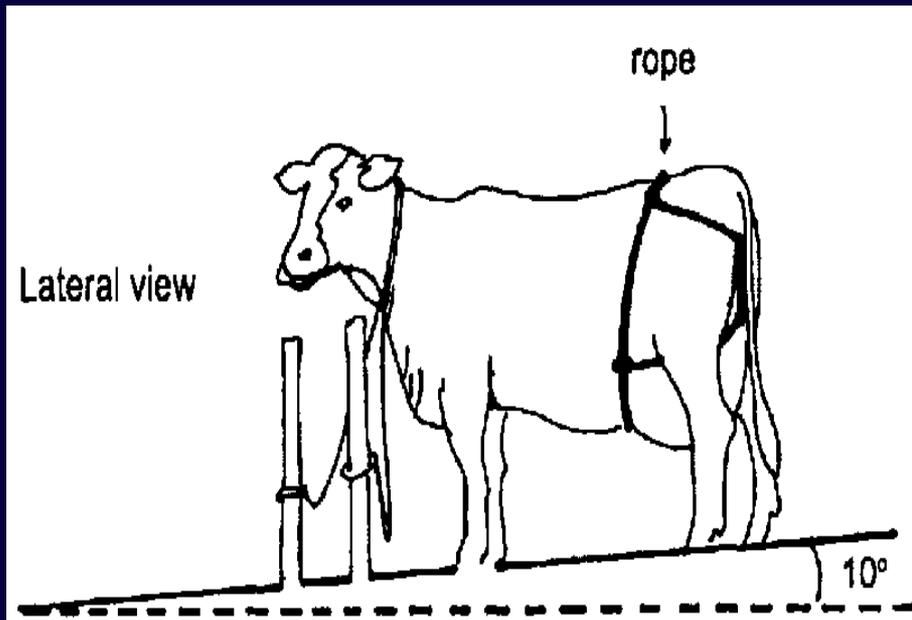
Retention

- ⊙ **Mild cases-** slight prolapse occurs when the cows lie down

Raise the caudal/hind quarters, Laxative diet

- ⊙ **Advanced cases-** elevate the rear parts of cow

Application of rope truss



- ❖ **Vulvar truss-** held in place by ropes around cows chest and neck & vulva padded with towel to prevent abrasions (Rope truss)
- ❖ **Pessaries-** long narrow bottle inserted into the vagina after replacement (Bottle truss)

Held in place by narrow piece of wood or metal placed into the bottle with a ring or loop on the end projecting out of the vulva

Heroic method

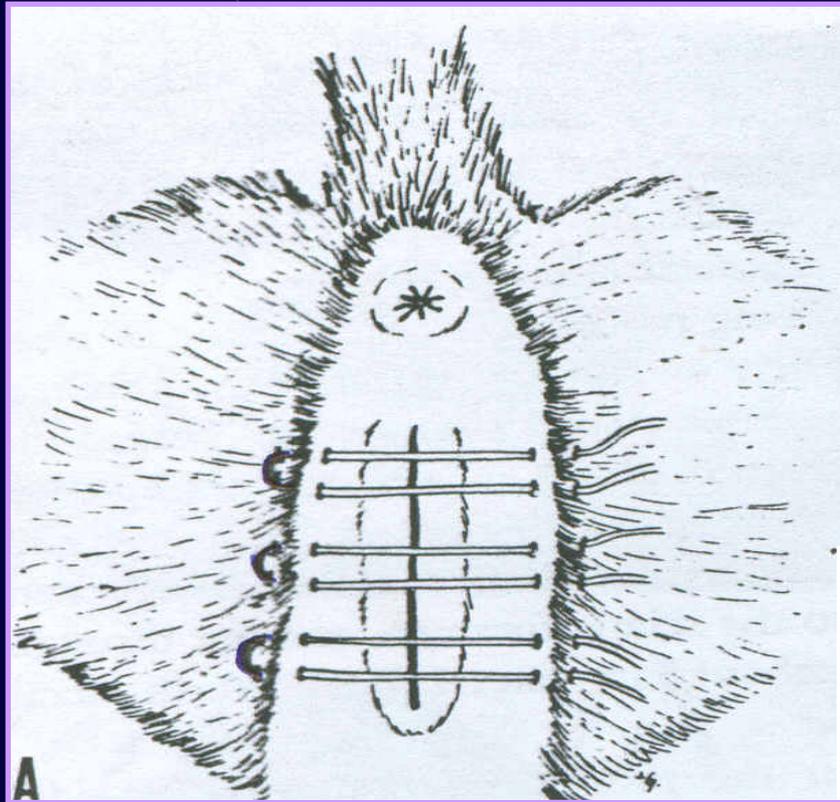
(1) Sutures

(a) External sutures

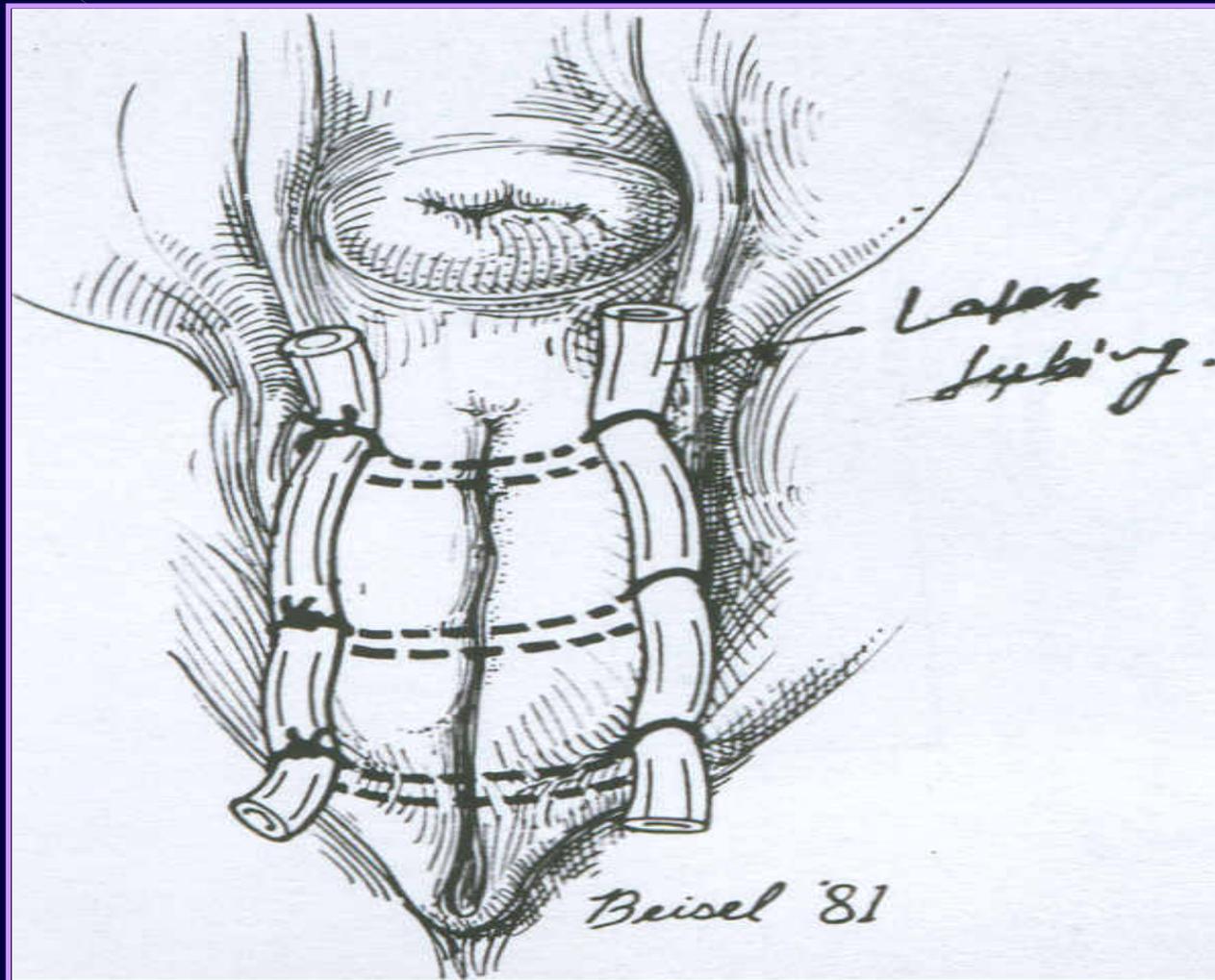
(b) Internal sutures

(a) External sutures

1. Halsted technique

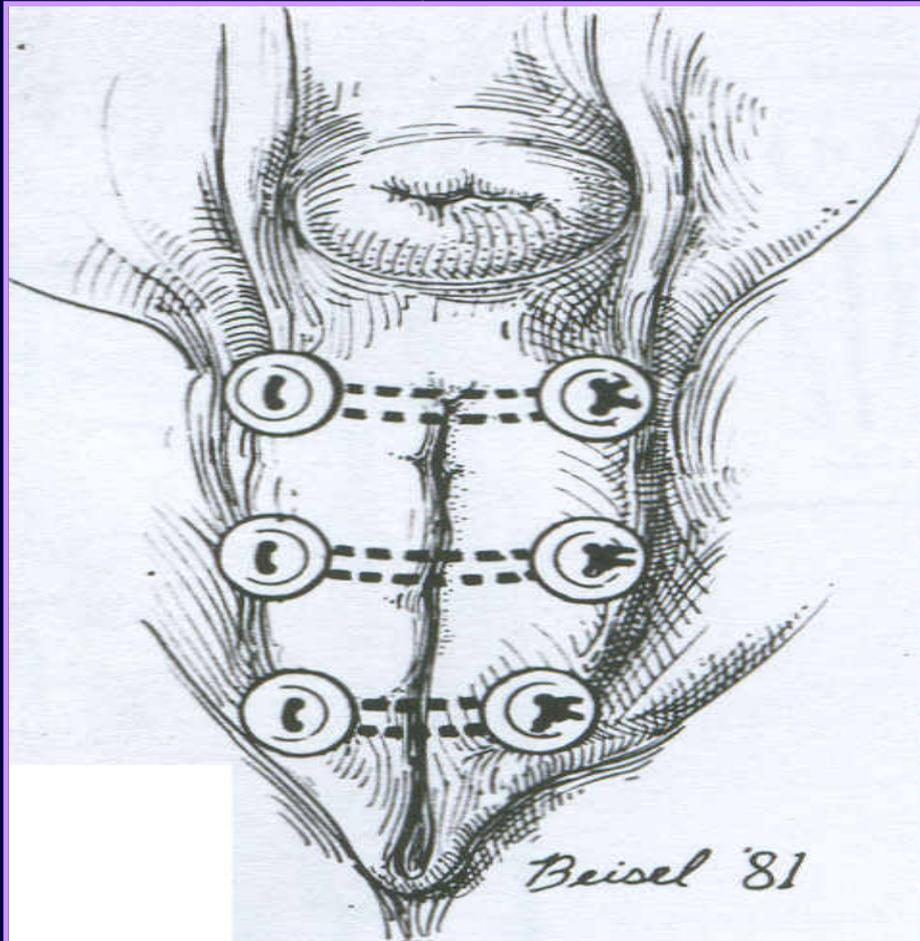


2. Mattress closure of vulva using latex tubing



3. Mattress closure of vulva using buttons

Horizontal mattress sutures placed through the holes in the button on each side of the lips of vulva



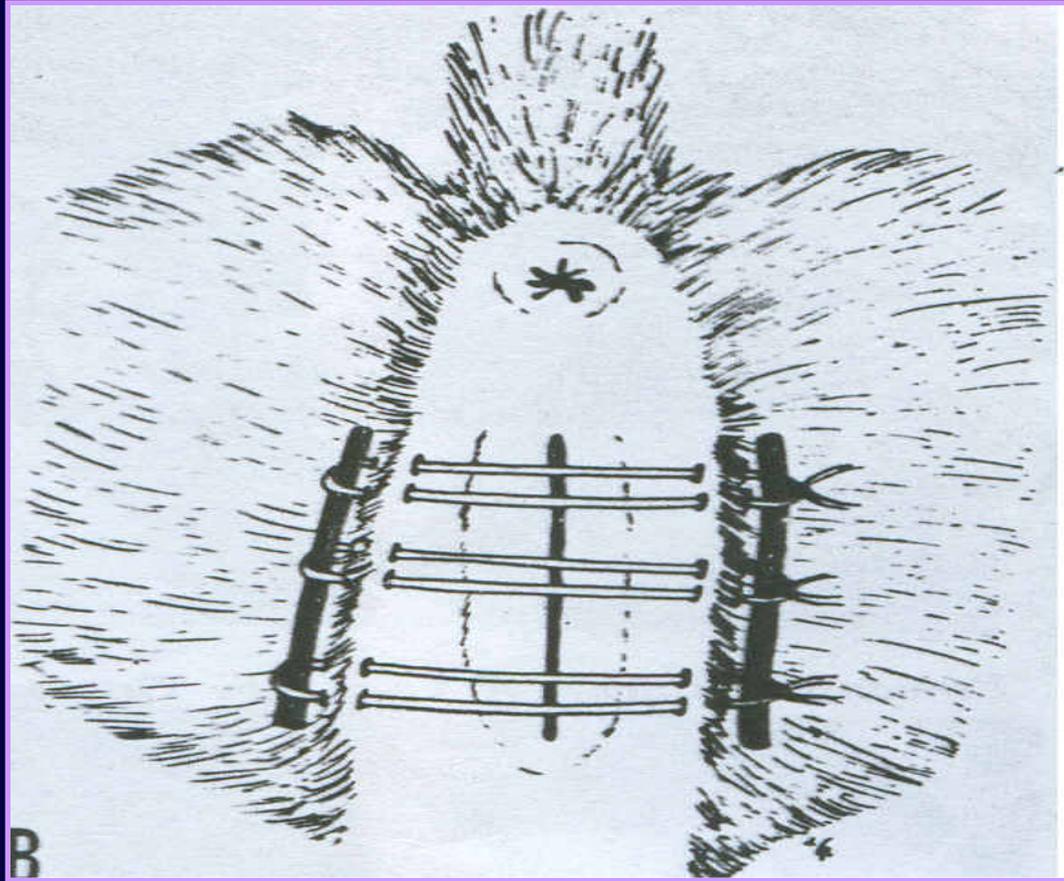
3. Mattress closure of vulva using buttons



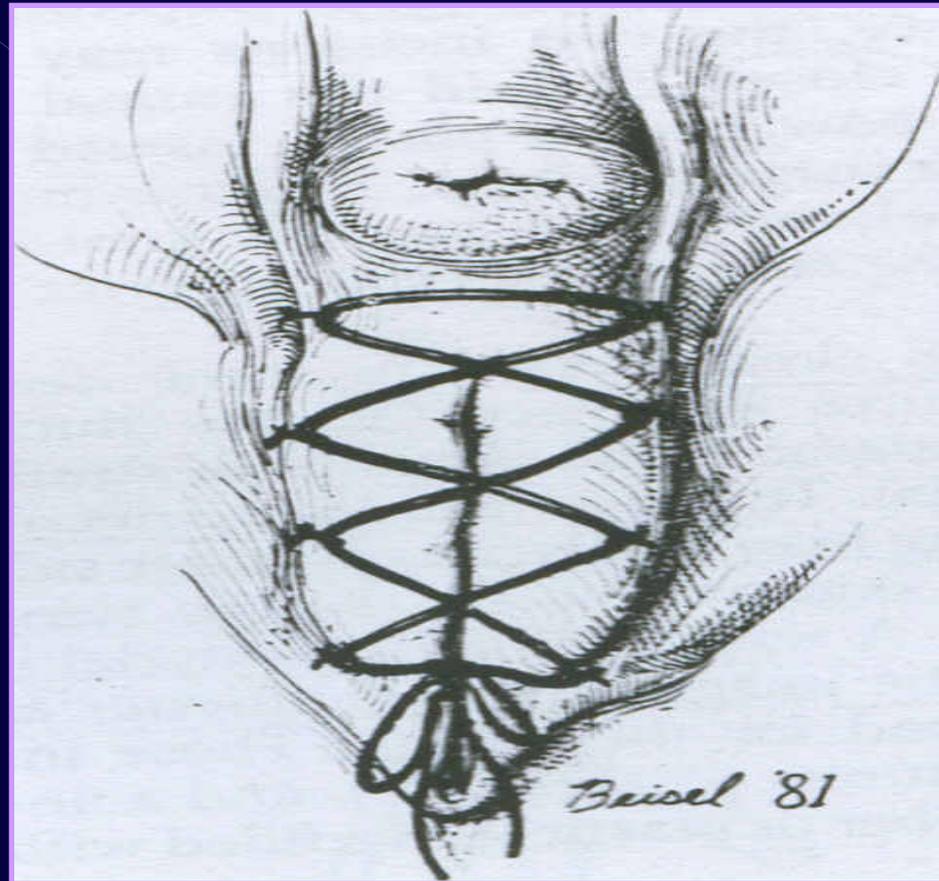
3. Mattress closure of vulva using buttons



4. Modified quill technique



5. Lacing closure or Criss-cross method or Shoe lace method



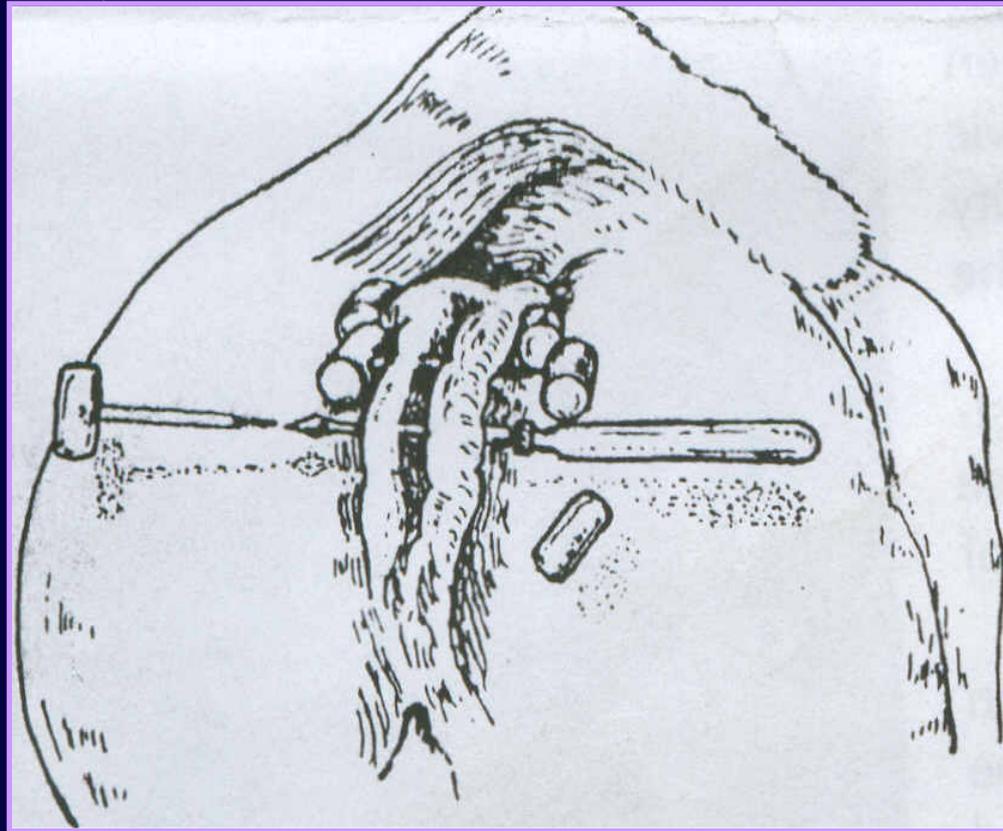
Williams, 1986

Application of Shoe lace Suture

Shoe lace Suture- Placed using double strand umbilical tape 3 -4 eyelets made in thick skin lateral to labia through which umbilical tape is laced and labia approximated

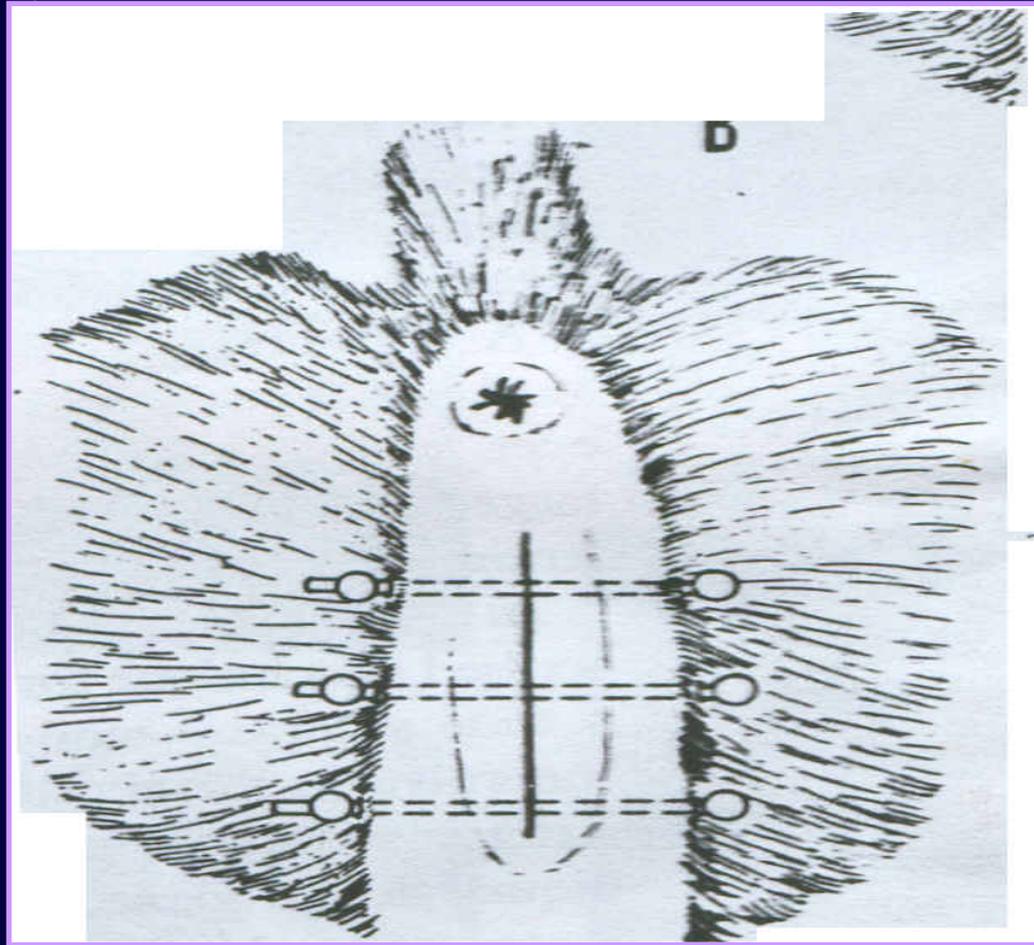


6. Flessa needles- Commonly used in field conditions to retain prolapsed organ. o Possibility of vulval tears if not placed sufficiently deep/ when tenesmus is present.



Arthur et al., 2001

7. Vaginal closure using prolapse pins



Robert, 1971

8. Buhner's method - **Buhner, 1958**

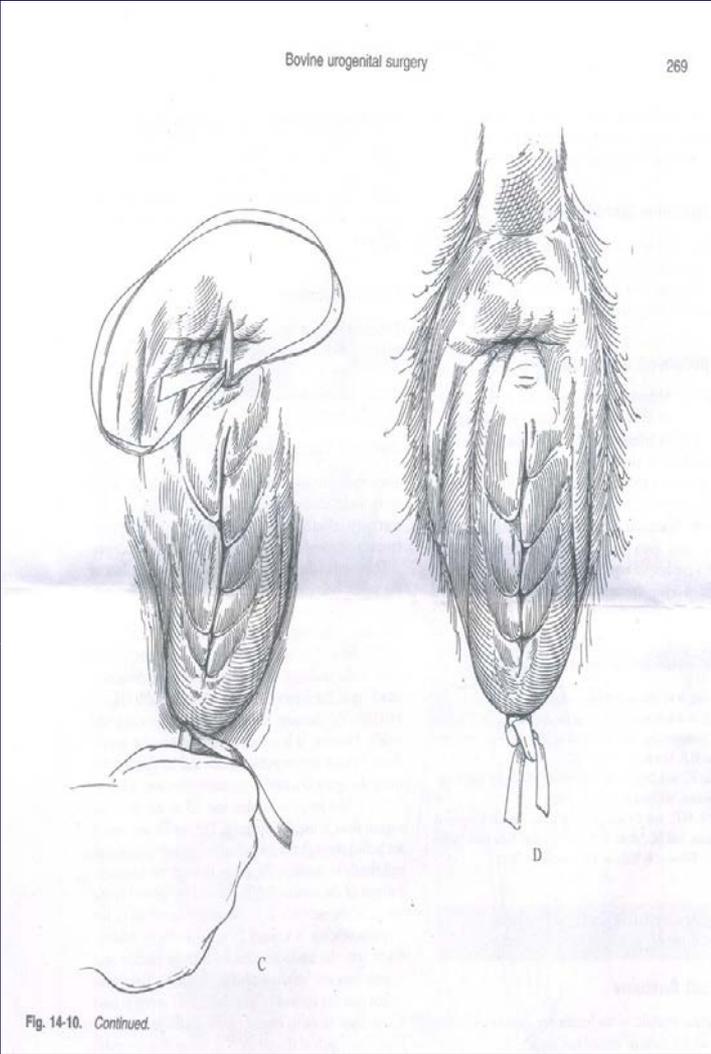
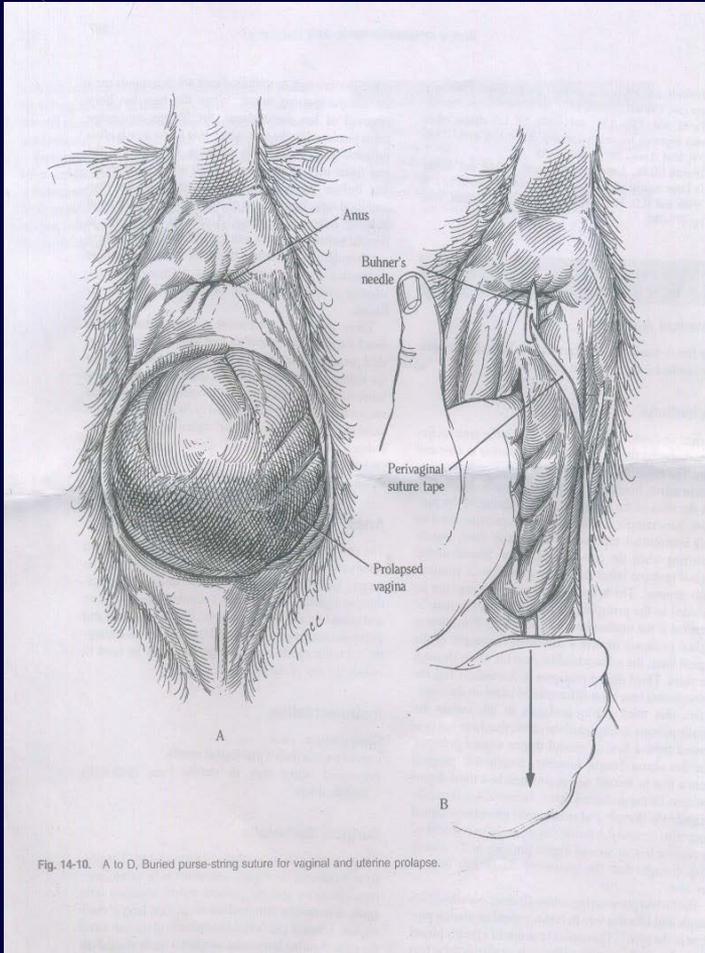
used in moderate (2nd Degree) or severe (3rd Degree) post partum prolapse as well as antepartum prolapse

- Performed under epidural anaesthesia
- Two one- half inch incisions are made 1-2 inches above upper commissure and below the lower commissure of the vulva
- With Buhner's needle nylon cord or heavy "Vetafil" is passed within tissues from one incision to other lateral to one vulvar lip

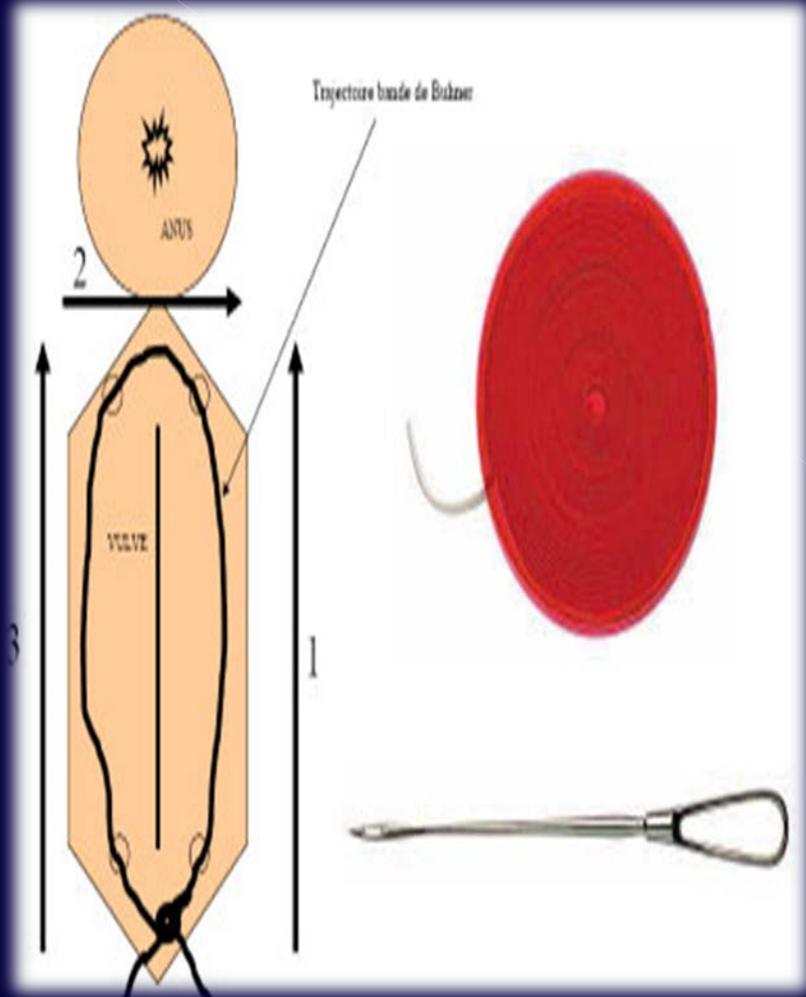
- **Needle is withdrawn and reinserted in opposite direction lateral to opposite vulvar lip to lower incision site and again withdrawn**
- **Purse string suture around the vulva is tightened until parturition when it is removed**

Buhner's Needle





Buhner Suture Technique



uhner's

- ◎ **Chronic prolapse in post partum cows-gonadotropic hormone given**
- ◎ **Farquharson technique of submucous resection or 'reefing' operation-**
 - **Perform under posterior epidural anaesthesia**
 - **Excise protruding mucosa which forms bulk of the everted mass**
 - **Control haemorrhage by suturing with continuous catgut sutures**

(b) Internal sutures:

1. Minchev stay suture technique:

Minchev in Bulgaria (Lateral wall fixation)

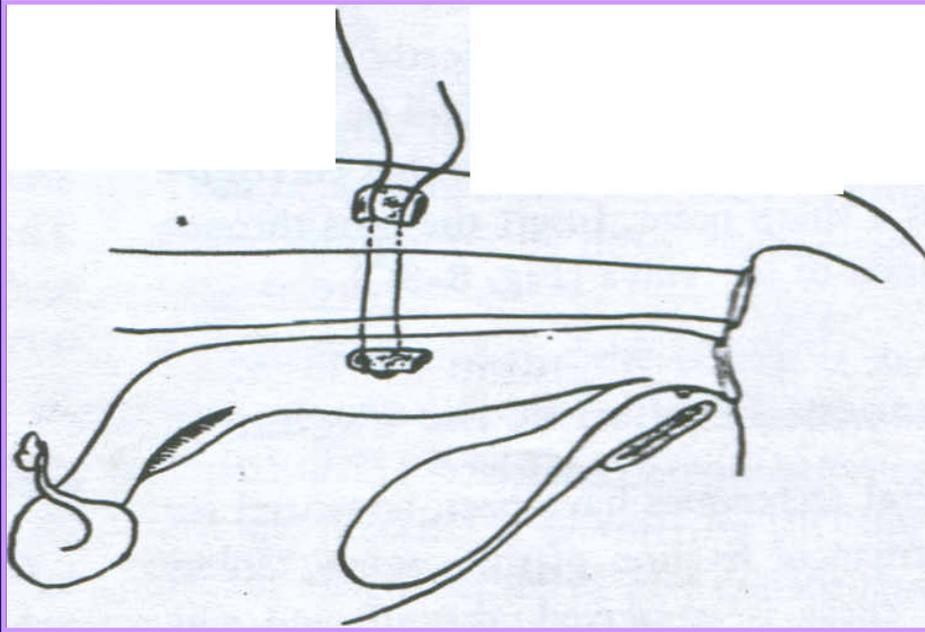
Objective : To anchor cranial vaginal wall of sacrosciatic ligament by ligatures passing from vaginal lumen through gluteal skin to outside on each side

Ligatures prevented from pulling through the tissues by

- 1. Rolls of gauze impregnated with antiseptic (Minchev)**
- 2. Sterilized overcoat buttons (Hentschl)**
- 3. Sterilized pads made up of industrial belting (Norton)**

(b) Internal sutures:

1. Minchev stay suture technique:

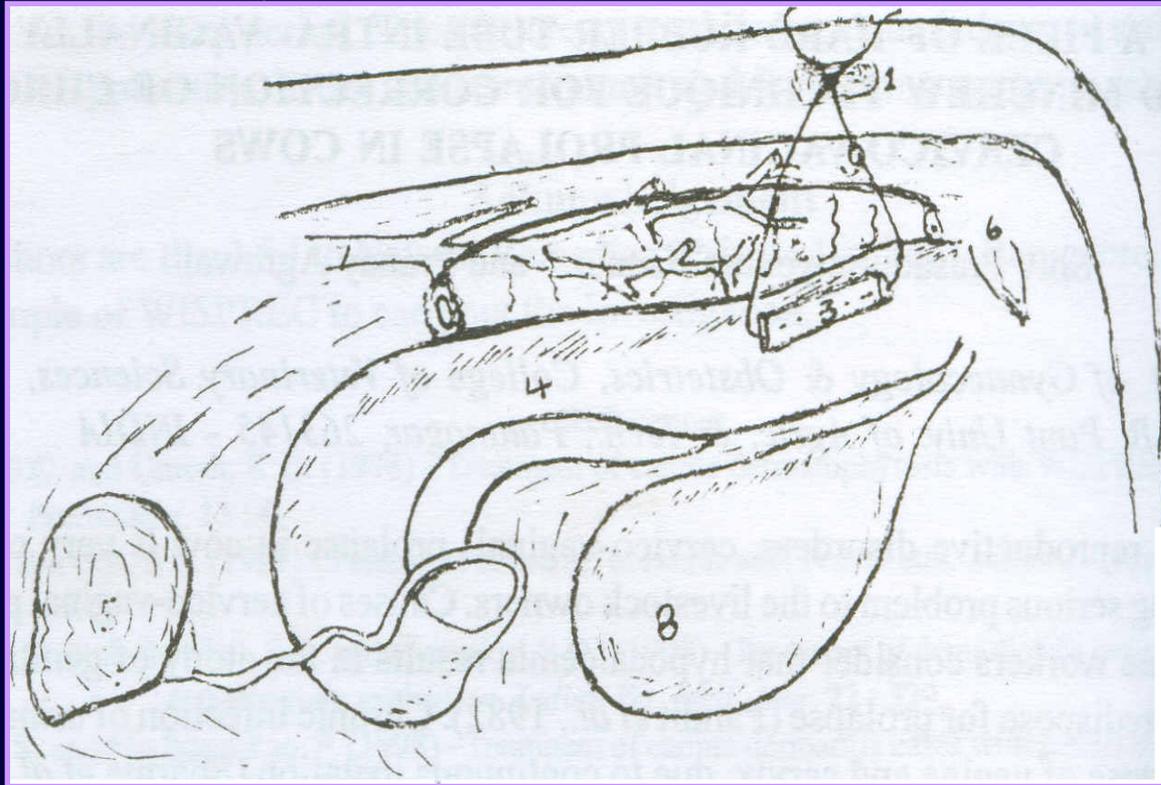


Disadvantages

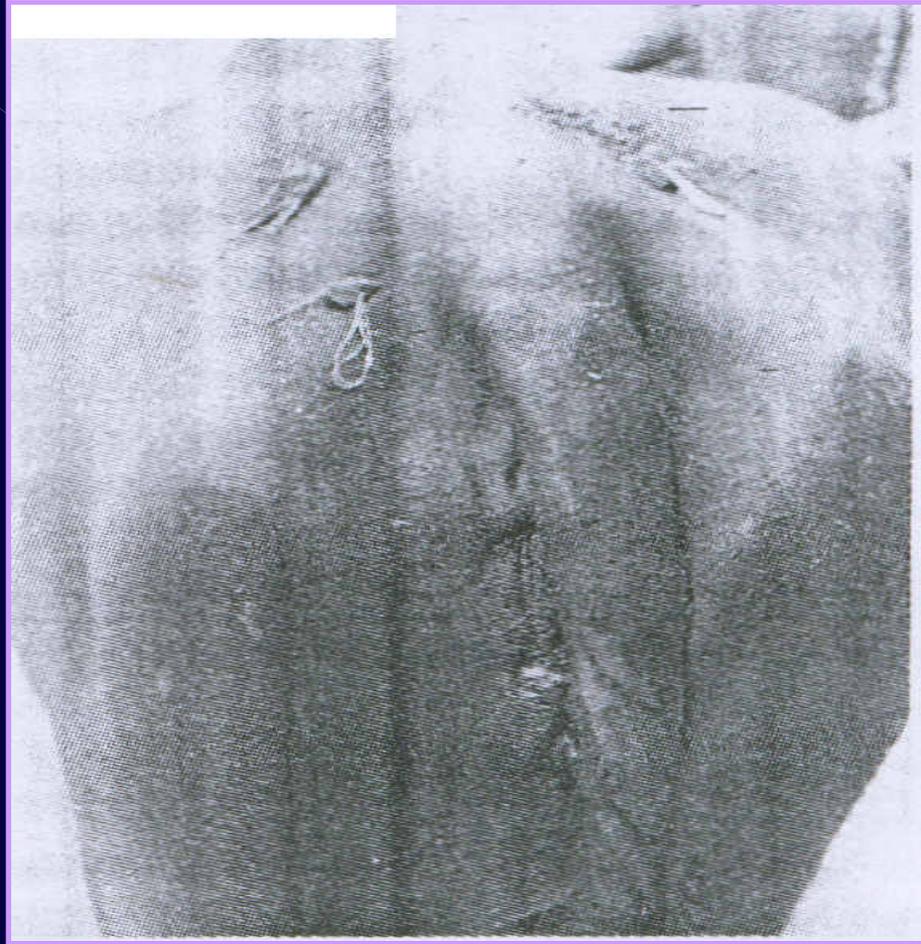
- 1. Risk of damaging sciatic nerve**
- 2. Not adequate to retain cranial portion of vagina**
- 3. Cow may strain enough to pull sutures through mucous membrane & cause peritonitis**

2. Modified Minchev technique

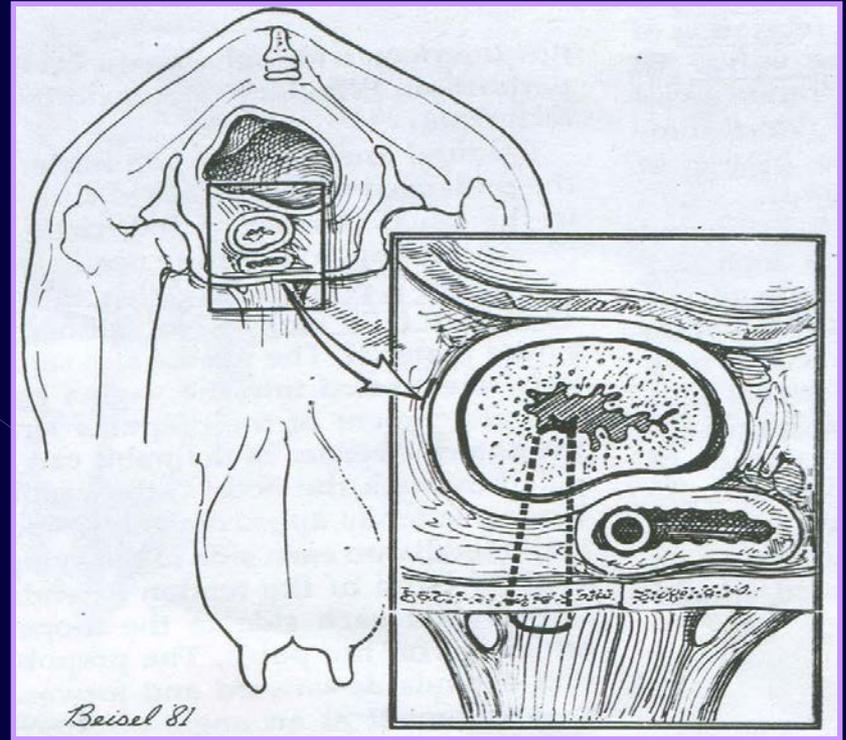
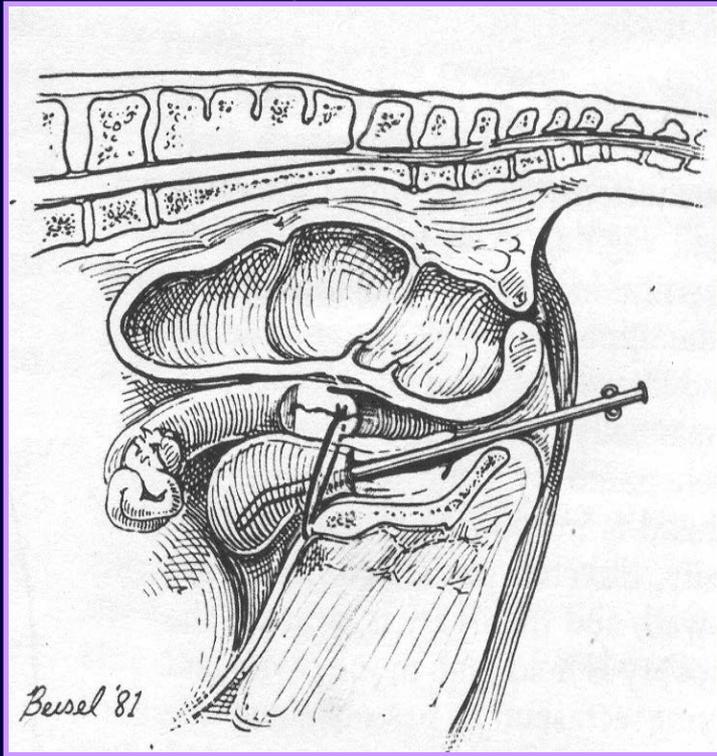
Use of hard rubber intravaginally



3.Misra`s vagino pexy technique



4. Winkler's cervical fixation technique



Winkler, 1966

4. Winkler's cervical fixation technique

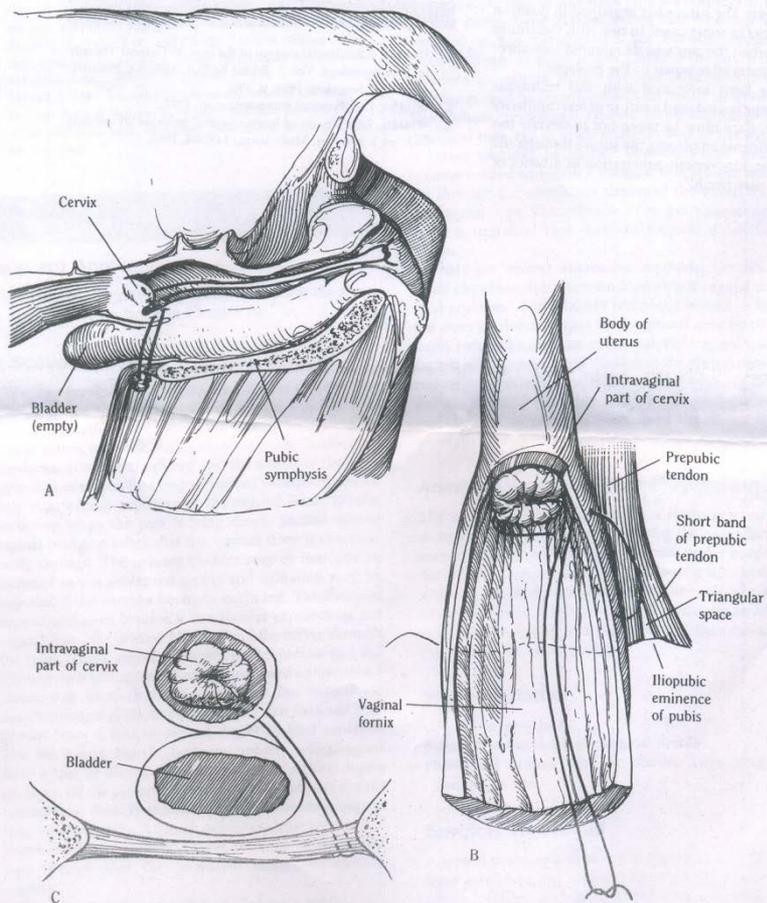
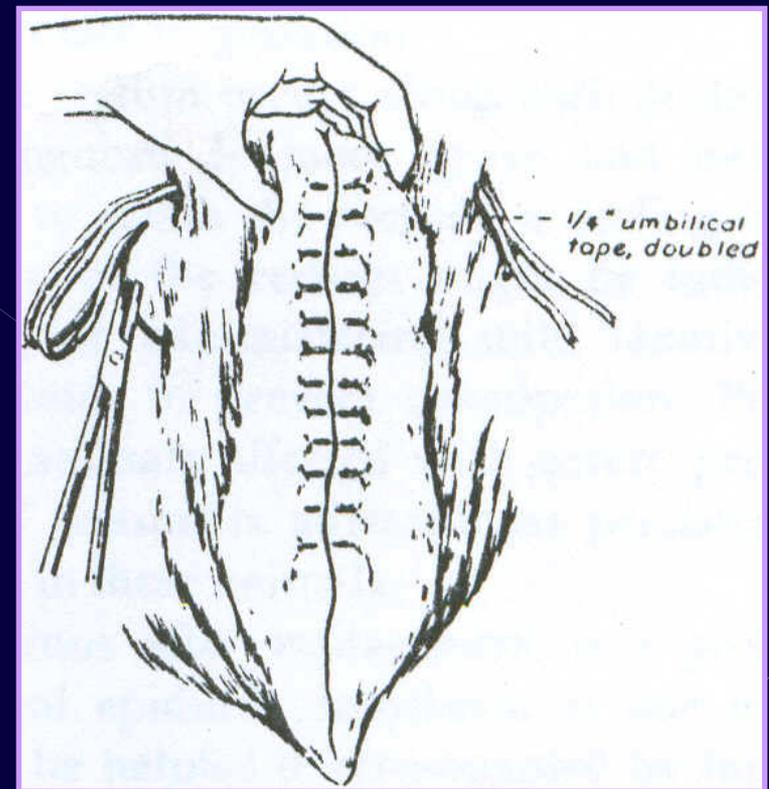
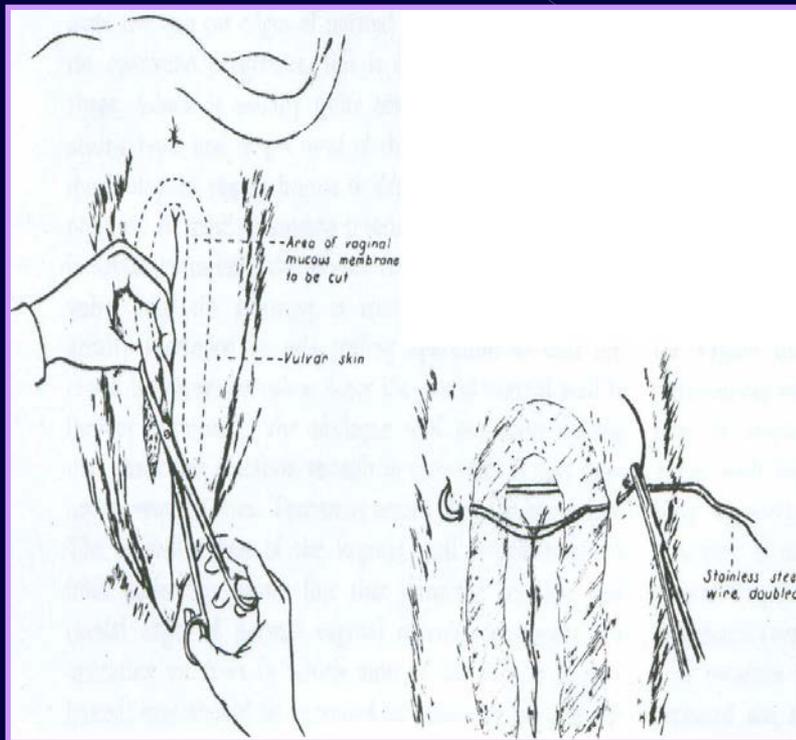


Fig. 14-11. A to C, Cervicopexy for vaginal prolapse.

◎ **Winkler method- Fixation of Vaginal Floor**

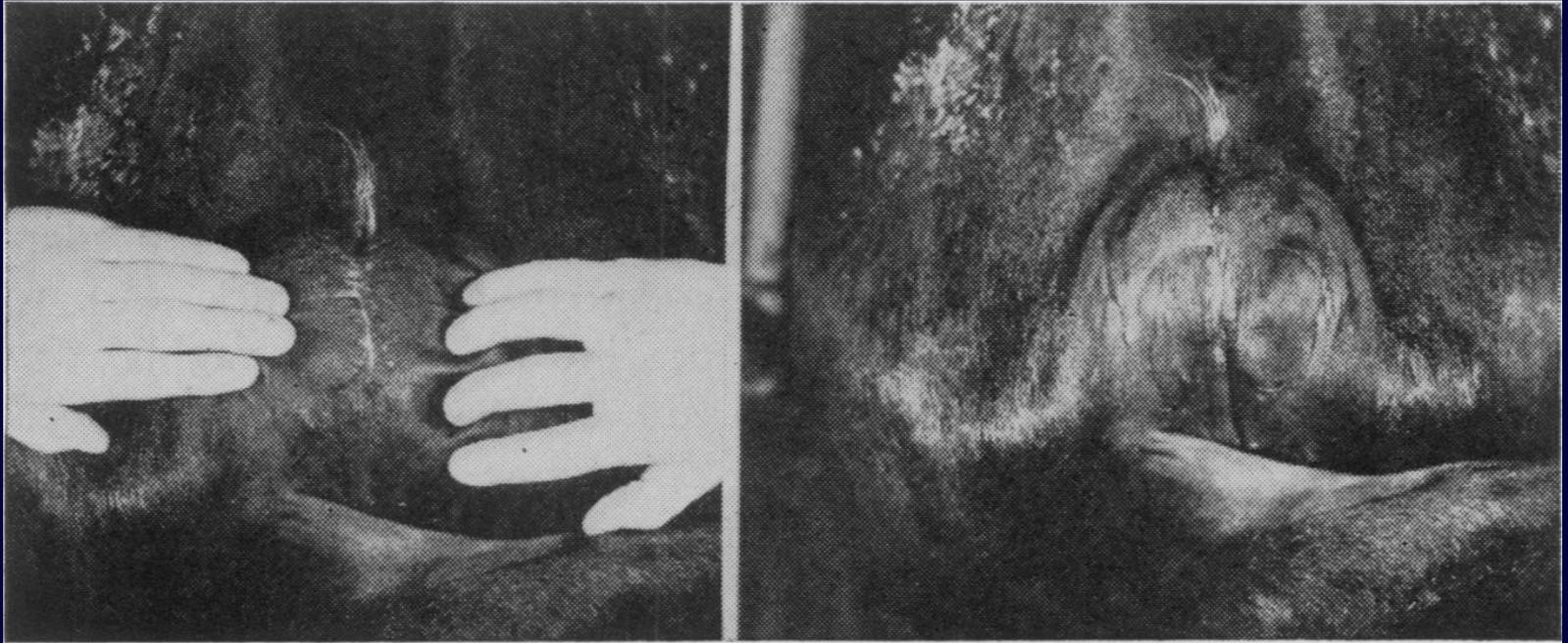
- **Perform under posterior epidural anaesthesia**
- **Fixation of cervix to prepubic tendon with a suture of monofilament nylon**
- **Suture placed from anterior vagina by means of 10 cm U- shaped cutting needle**

(c) Operative technique: 1. Modified caslick operation



Robert, 1971

Modified caslick operation



Modified caslick operation (Volvopexy)

- **Epidural anesthesia to prevent straining & defecation**
- **Surgically scrubbing the vulval area**
- **For chronic vaginal prolapse, removing narrow strips of tissue (0.5-1.0cm) from dorsal two third of mucocutaneous junction of labia.**
- **Apposing wound edges with simple interrupted sutures using non-absorbable material**
- **Removing sutures after 14 days.**

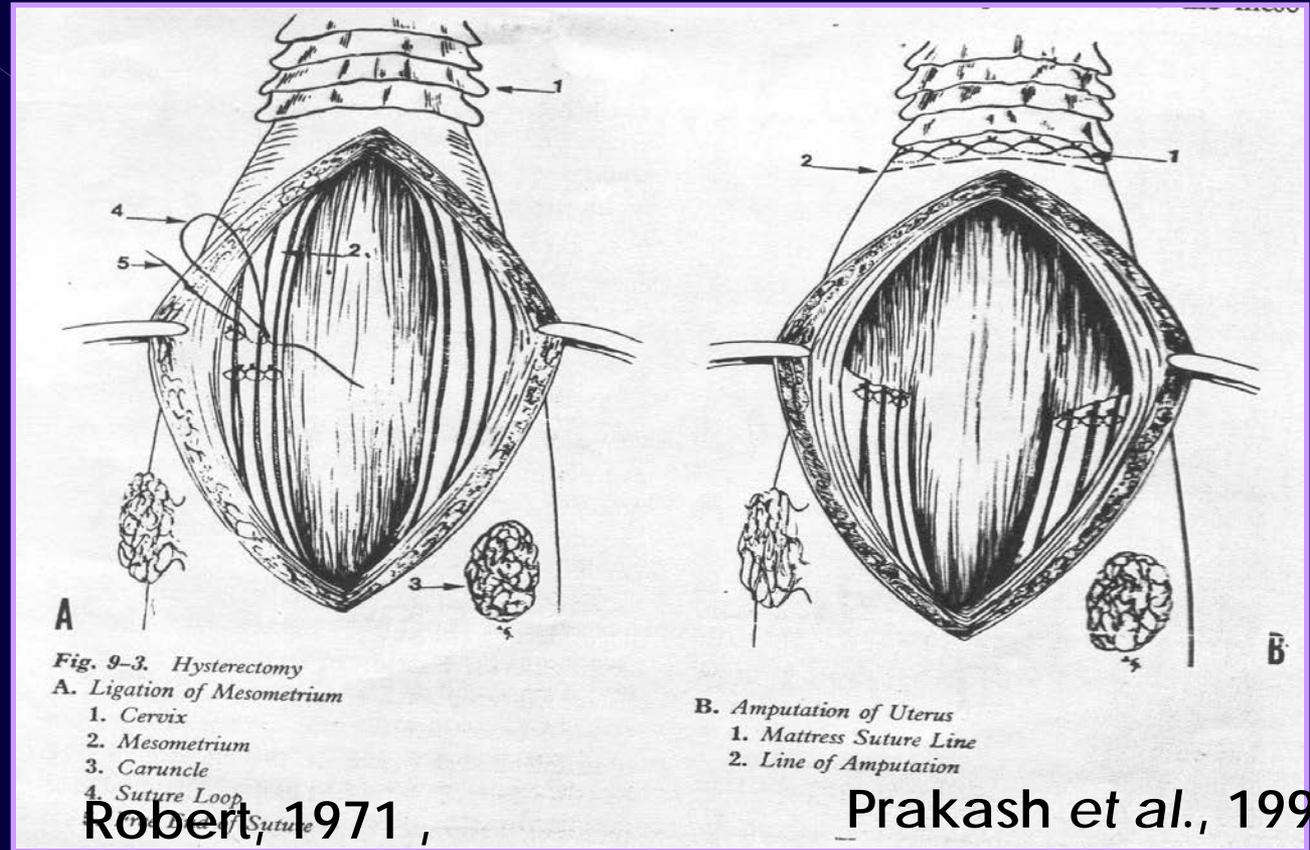
2. Reefing operation

**Sub mucosal resection of vagina Farquharson,
(1949)**

- **Applicable to chronic cases with extensive necrosis & swelling of vaginal mucosa**
- **Administration of epidural anesthesia**
- **Resection of damaged mucous membrane usually over crescentic area**
- **Coaptation of incised edges**
- **Time consuming & accompanied with hemorrhage**

- ◎ **Farquharson technique of submucous resection or 'reefing' operation-**
 - **Perform under posterior epidural anaesthesia**
 - **Excise protruding mucosa which forms bulk of the everted mass**
 - **Control haemorrhage by suturing with continuous catgut sutures**

3. Amputation of uterus



(4)Pneumoperitoneum

(Esperson, 1960 and Svendsen, 1966)

(5)Tracheotomy

(Robert, 1971)

© **Guard and Frank method-**

- **Incisions are extended through the vaginal wall**
- **Excess fat is removed before the vaginal walls are brought into apposition**

(E) Miscellaneous technique

1. Removal of ovaries

Surgical removal of cystic ovaries in cow

2. Homoeopathic treatment

Use podophyllum-200 and sepia for 8 days (75%) recover successfully with in average treatment period

Care

- ⦿ **Balanced ration avoiding too much dry & green fodder**
- ⦿ **Proper Ca, P supplementation**
- ⦿ **Administration of calcium borogluconate every third day till animal is normal**
- ⦿ **Bed of animal s/not have slope & hind quarters s/be elevated**

THANK YOU