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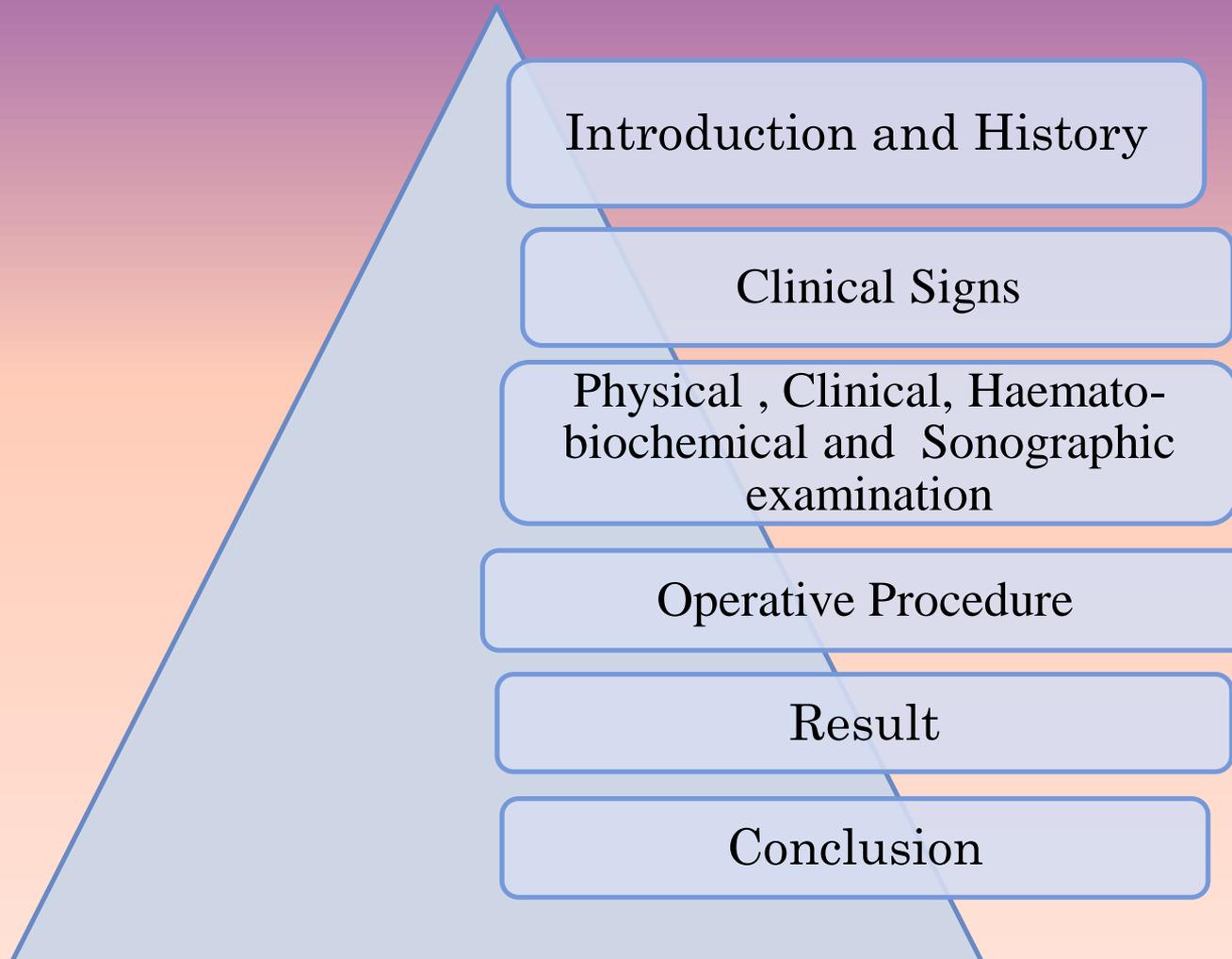


**MINIMALLY INVASIVE MANAGEMENT OF URINARY
BLADDER RUPTURE IN A GIR BULL USING A
PIGTAIL CATHETER VIA THE ISCHIORECTAL FOSSA**

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OVERVIEW



INTRODUCTION

Urolithiasis is a common disease of ruminants

Causes severe Economic loss to small scale farmers.

Leading to uraemia and death.

Protein-rich diet

Concentrate feeding

Early castration

Decreased water intake, during the winter

High water loss during the summer



ANAMNESIS

- **GIR Bull with a history of not passing urine since 3-4 days was presented to Dept of Veterinary Surgery and Radiology, Veterinary College Hassan, Karnataka.**
- **History of feeding of Concentrate diet**



CLINICAL SIGNS

- **Anuria**
- **Tenesmus**
- **Dehydration**
- **Markedly reduced feed intake**
- **Pot belly look**



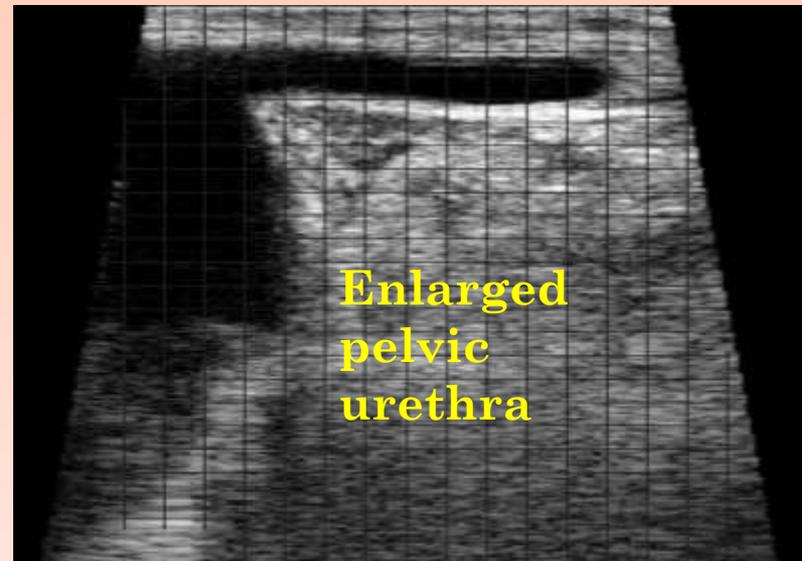
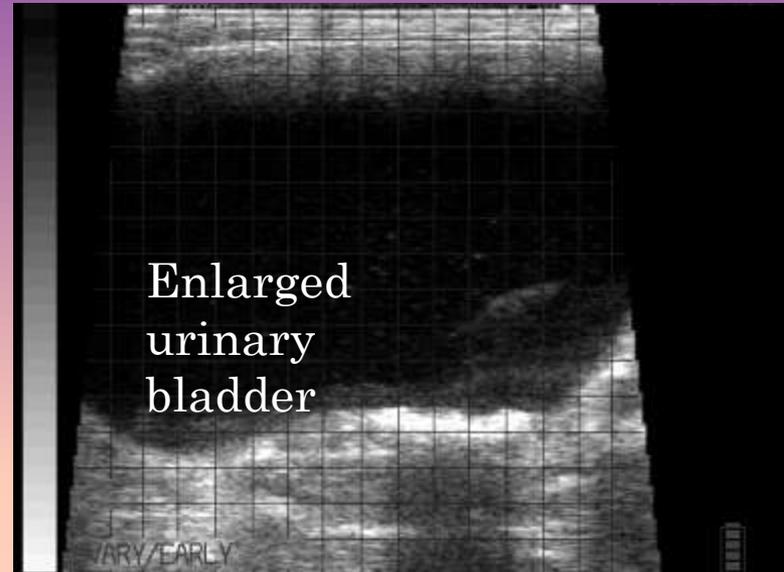
PHYSICAL AND CLINICAL EXAMINATION

- **Animal is lethargic**
- **Slightly dehydrated.**
- **Temp-Normal**
- **HR- Elevated**
- **RR-26**
- **Per rectal examination revealed intact, tensed and distended urinary bladder**



ULTRASONOGRAPHIC EXAMINATION

- **Ultrasonographic examination of GIR bull shows**
 - **Distended bladder**
 - **Hyperechoic sludge and particles suggestive of cystitis.**
 - **Enlarged pelvic urethra**



Haemato-Biochemical examination

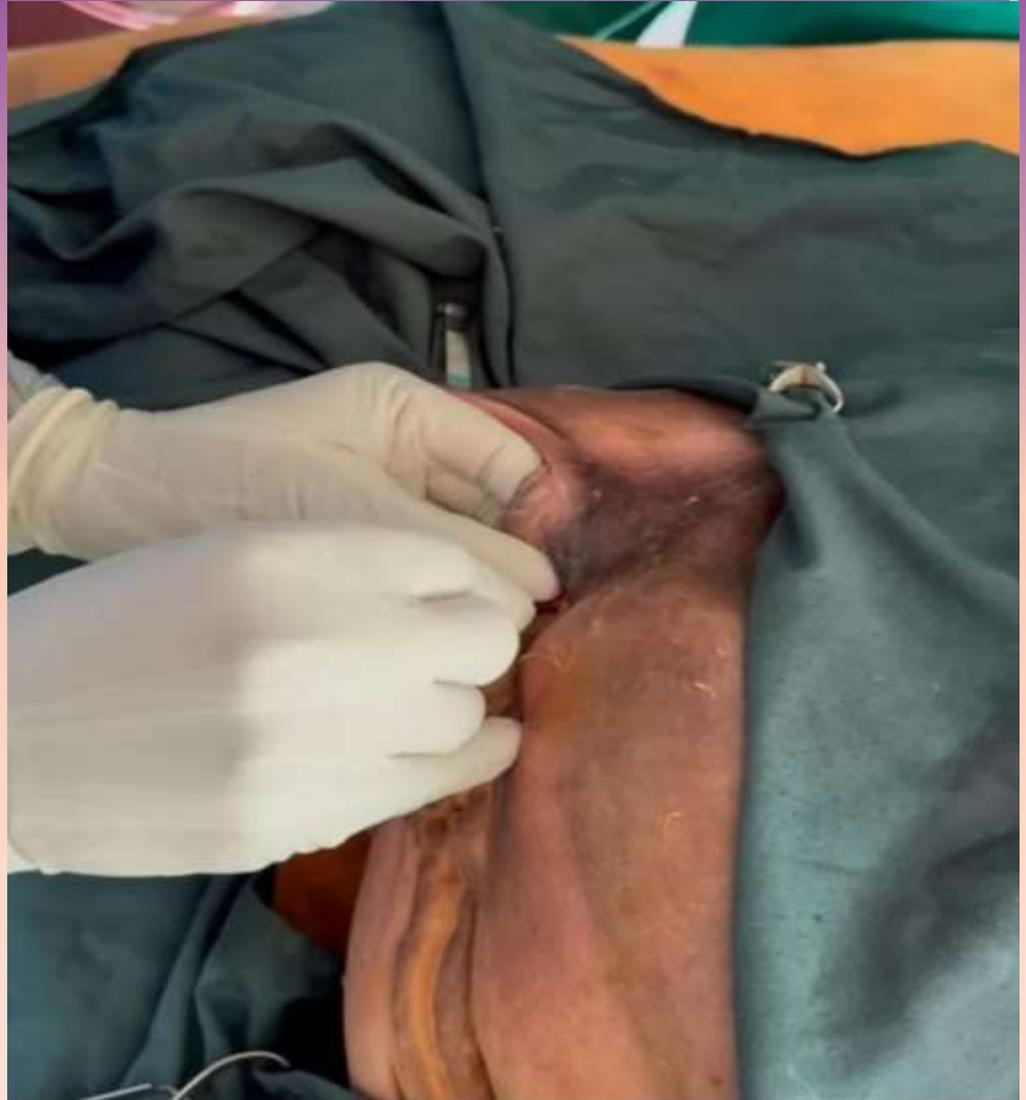
○ Pre operative – Day 0

Case	TLC $10^3/\mu$ l	Hb gm/dl	PC V %	BUN mg/dl	CR T mg/ dl
GIR	46.6	17.6	43	41.33	14.7



Surgical Procedure-MIPCTC

- **Fluid therapy**
- **Mild sedation using Butorphanol @ 0.05 mg/kg body weight.**
- **Lower epidural anaesthesia - 2 ml of 2% lignocaine**
- **Aseptic preparation of surgical site after scrubbing with povidone iodine.**



- **Making nick incision in right ischio rectal fossa**
- **Separation of Pelvic diaphragm subcutaneous and muscles**
- **Tunnel is made using Artery forceps**



INSERTION OF PIGTAIL CATHETER



DRAINAGE OF URINE FROM THE URINARY BLADDER



**Securing the PCN catheter to skin by
Chinese finger trap using polyamide size 1**



POST OPERATIVE

- **Inj strepto-penicillin @10,000IU/kg body weight IM**
- **Inj Meloxicam @0.3mg/kg body weight IM**
- **Ammonium Chloride @ 200mg/kg body weight per orally**
- **Ammonium Chloride (5%) flushing – 200 ml in to the Bladder for 4 days (2nd day onwards)**
- **Fluid therapy**
- **Wound dressing with cipladine and Almizol spray**



POST OPERATIVE-DAY 1



DRIBBLING OF URINE, PO DAY-3 AND 5



Dribbling of urine- Day-3

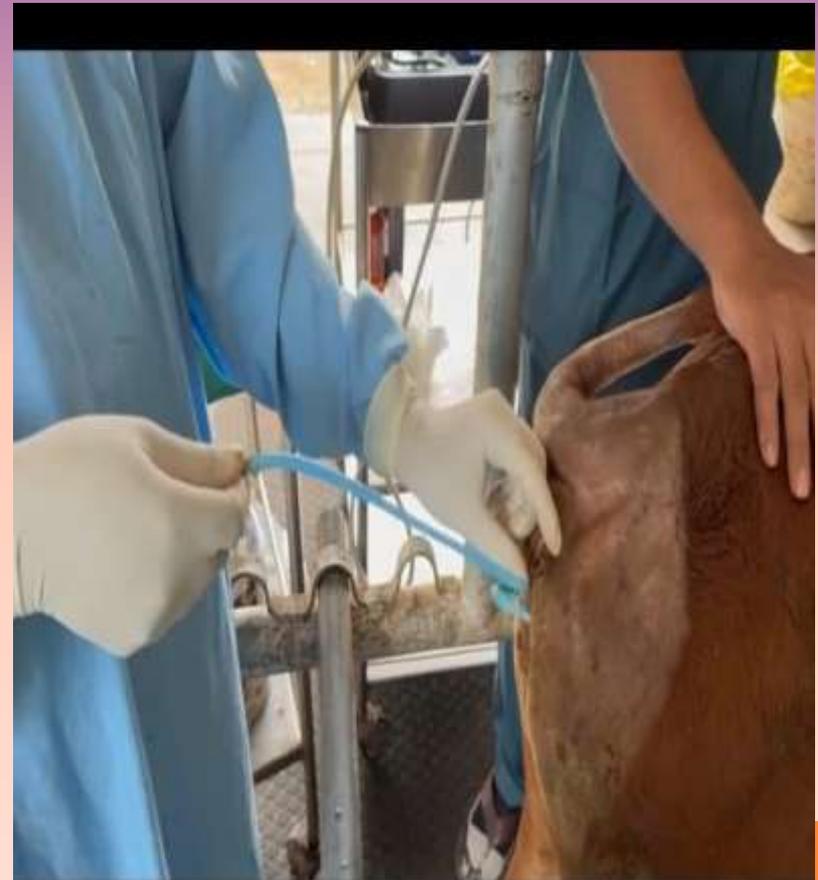


Dribbling of urine- Day-5

STEADY STREAM OF URINE FLOW –PO 7 TH DAY



REMOVAL OF CATHETER PO 7TH DAY



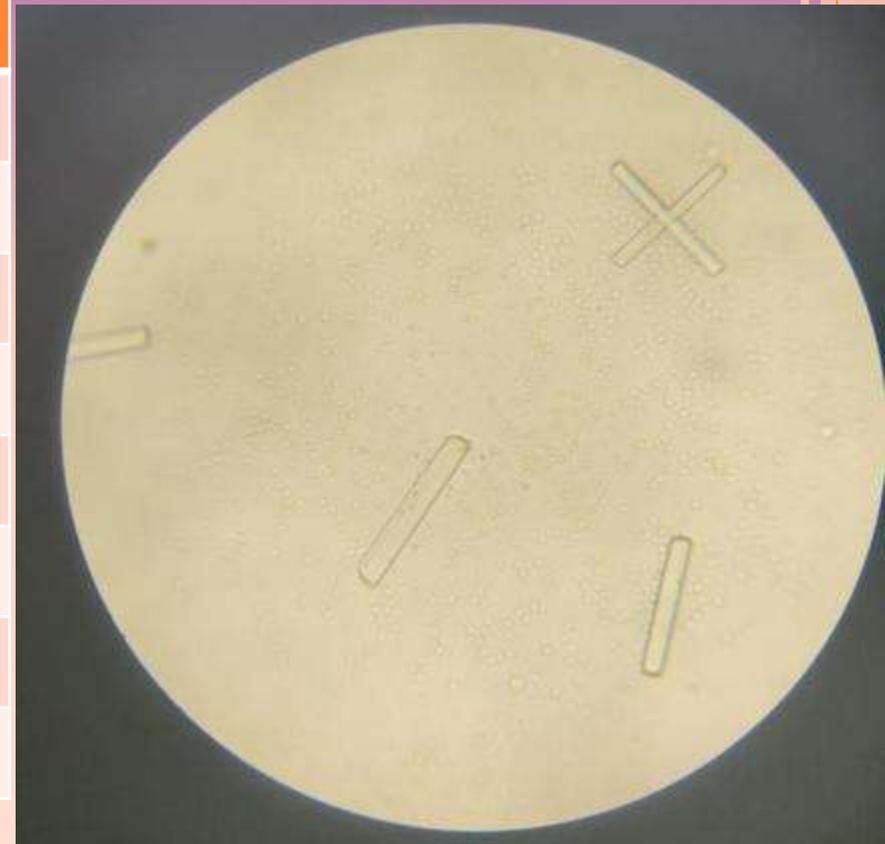
POST OPERATIVE HAEMATO-BIOCHEMICAL EXAMINATION

	TLC 10³/μl	Hb g/dl	PCV %	BUN (mg/dl)	CRT (mg/dl)
1st day	20.150	10.56	40	35.35	6.3
3rd day	18.150	10.1	36.1	23.2	1.7
5th day	9.560	11.34	27	18.35	0.9

POST OPERATIVE URINE EXAMINATION

Case		pH	Specific gravity	Leucocytes(per microlitre)	Protien (mg/dl)
GIR	Day 0	9.3	>1.030	125++	2
GIR	1 st	7.3	1.022	70-125	1-2
GIR	3 rd	6.6	1.015	70+	1
GIR	5 th	6	1.010	15-70	0-1

Microscopy



Calcium phosphate crystals

RESULT

- **Urine started dribbling to stream on 2nd post operative day**
- **On 5th day steady stream of urine from the prepucial orifice**
- **10th day Pigtail catheter is removed**
- **Animal showed uneventfull recovery**

Before



After

CONCLUSION

- **MIPC Tube cystostomy using PCN Catheter is a quick, practicable, field applicable, and reliable method for the management of obstructive urolithiasis in ruminants.**
- **This method can be opted to stabilise the animal before going for urethrotomy**
- **Surgical management along with medical management provided very good treatment option for obstructive urolithiasis in ruminants. (Amarpal., *et al* 2010)**

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Thank You