

# Experiences in the Management of Urinary Incontinence in T. U. Teaching Hospital

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## Introduction

Urinary incontinence is a malady of very considerable distress not because it generates discomforts but because of social stigma, and the constant companionship of uriferous smell. We have encountered some cases of urinary incontinences in T. U. Teaching Hospital during the last two years period. Many women due to illiteracy, ignorance or shyness do not seek advice from a doctor in our country. Although no authentic study has been done about the present situation of urinary incontinence in Nepal, we are pretty sure that this serious condition is not so uncommon in our country where there is still no good obstetric & ANC coverage. People will only seek advice if the distress is of considerable magnitude and amount to social embarrassments.

Stress incontinence, the loss of urine with physical strain e. g. coughing, sneezing, ballet dancing, carrying loads is a common complaint of older women. It usually occurs as an aftermath of child birth. But it has been observed in girls and nulliparous women too. A view of the mechanism of stress incontinence is presented below.

Normally, urethral resistance is about 500 cm of water, this is the sum of resistance of smooth muscle of urethral sphincter (50 cm of water) and the striated midurethral sphincter (50 cm of water). Normally with strain or cough, intraperitoneal pressure rises sharply but the resistance in the mid-urethra rises also, thus maintaining the effectively high urethra to detrusor pressure ratio. In patient with stress incontinence, the basic lesion is the loss of normal mid-urethral resistance caused by serious sagging of vesical base and urethra due to poor support of these structures. The sphincteric muscles are usually normal, but with the descent of the urethra and bladder, they can not work efficiently. Normally, the length of urethra is 4 cm in female. Urethral pressure studies show little closure pressure in the proximal half of urethra. Thus the functional length of urethra is about 2 cm (Tanaho 1979). In addition the area of the prosterior urethra and bladder neck has fallen out of the true pelvis, so that the strain which suddenly increases intravesical pressure, is associated with decreased resistance in the proximal and mid urethra, thereby leading to incontinence.

Susset et al (1976) Gerhson and Diokono (1978), Faysal et al (1981) and Lockhart et al (Urology, 1982) have also published the urodynamics and video-cystometrographic studies on urinary stress incontinence. Below, is given the summary of the result of limited number of causes of Urinary incontinence as encountered in T. U. Teaching Hospital.

#### CASE - I

Mrs. P. K. Baiju 39 years old female was admitted on 4/1/044 with history of frequency of micturition and for last two years with incontinence of urine during straining. She was married having 4 children. Had no h/o prolonged and precipitate labour. All home deliveries without complications and no perineal tears.

P/v Examination was unremarkable except incontinence of urine while coughing and even on application of mechanical pressure in suprapubic region. Laboratory Examination revealed (Hb - 13 Gm%, Tc. 7000/cm, DC - N70, L30, E0, M0, B0, routine urine examination NAD, urine c/s - no growth after 24 hours incubation.

KUB : Normal; CXR : Normal, Urodynamic Studies not undertaken due to lack of equipment. A clinical diagnosis of stress incontinence was made.

Stamey's operation (Endoscopic Colposuspension) was performed with 30 degree telescope and improvised aneurysm needle.

She made good and uneventful post operative recovery. Indwelling catheter was removed after 8 days. She had good control of micturition. She came for follow up after one month. She was perfectly well accepted socially by her husband.

#### CASE - II

Mrs. R. Ghimire, 25 years old female was admitted on 1.8.043 with history continuous incontinence of urine for last 4 years following prolonged labour. Incontinence was

worst during erect posture.

On examination, weight 45 kg. General condition fair, pulse 80/minute. B. P. 140/80 mmHg. Temperature 37 degree centigrade. Other clinical examination was unremarkable.

P/V examination revealed dribbling of urine on coughing. Investigation showed Hb 14.4 gm%, Tc 7050/cmm, DC - N46, L41, M5, E6, B1.

Urine R & M Exam. - NAD

Urine culture and sensitivity - E. coli. sensitive to Nalidixic acid

CXR : NAD

KUB : NAD

Diagnosis : Stress incontinence

Berch's culposuspension was performed.

#### OPERATIVE TECHNIQUE :

With the patient in Trendelenberg tilt, the bladder emptied & catheter left in site, spigotted off with 5 ml of fluid in balloon, retropubic space opened through a Pfannenstiel incision. The lateral vaginal fornices identified and urinary bladder swept medially. 3 Nylon sutures placed through the lateral vaginal fornix & Gimbernet and lacunar ligaments and tied while assistant's fingers approximated vaginal fornix to ligaments. The procedure was repeated on the other side. A percutaneous suprapubic catheter inserted. Redivac drainage placed in each vaginal fornix and an indwelling folley catheter.

She had no peri & post-operative complications. She had good continence of urine on follow-up after 1 month.

#### CASE - III

Mrs. C. M. Shrestha, aged 48 years female from Sindhuli was admitted on 04/3/5/2 with history of continuous dribbling of urine for last 5 years following prolonged labour resulting in still birth at home.

Her general examination was unremarkable. P/v examination showed a fistula in the base of bladder involving posterior urethrovaginal junction about the size of the tip of the thumb.

#### LAB INVESTIGATION -

Hb - 12.2 Gm.%

Tc - 6,200/cmm

N51, L26, M10, E13.

B. Sugar 5. mmol/L

Urea 72 mcg/L

Urine R/M exam. : NAD

Urine c/s - Preteus mirabilis

Sensitive to nalidixic acid

Se-Electrolytes  
Ivu : Normally f

Cystoscopic fin

Operation : La  
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#### CASE IV

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bule, introitus  
rectal mucosa

Se-Electrolytes Na 138; K 4.1 mcq/L

Ivu : Normally functioning both kidneys.

Cystoscopic findings : a. Vesico-vaginal fistula (VVF) with complete anatomical distortion of bladder neck mechanism & proximal urethra.

b. Bladder neck, proximal urethra & trigone involved in fistulation no sphincteric mechanism.

Operation : Laporotomy & Bilateral ureterosigmoidostomy through Politano Lead-better technique.

The abdomen opened by a right lower paramedian incision. The patient is placed in Trendelenberg position and right ureter was sought as it crosses the bifurcation of common iliac artery, and was identified and dissected from its bed towards its entry into urinary bladder. The ureter was then divided close to vesicoureteric junction, distal stump ligated. The proximal end was trimmed obliquely and split for one centimetre. An incision 3 cm long was made in the wall musculature of sigmoid colon through taenia, mucosal coat dissected. An incision was made into the extreme lower end of the exposed mucus membrane and the full thickness of the ureteric wall was joined by interrupted 4/0 chromic catgut sutures to the mucosal opening. The muscular coats of the bowel was approximated over the ureter without tension. Suturing the peritoneal incision around the ureteric implant extraperitonizes the site, and a drain was left down to the area. The left ureter was implanted on the colon in the similar manner. A full sized Foley catheter was inserted through the anus no farther than the rectal ampulla, the balloon was then inflated.

She had no intra and post-operative complications. She had no urinary dribbling post-operatively. She was perfectly OK, on follow-up after one month.

However she was advised to go to "Loo" as frequently as possible and continue taking locally available baking soda- "Life long" and periodic check up of serum sodium, potassium and chloride.

#### CASE IV

G. D. Belbase, 30 year, female from Lumjung was admitted with history of continuous dribbling of urine for last 13 years following prolonged labour of 7 days duration also complained of incontinence of feces when she has had loose motions. She was normally constipated on several occasions. She has to evacuate her bowel manually. She underwent vesico vaginal fistula repair 3 years back at Tansen without any success.

Physical examination showed moderate build, weight 44 kg. BP. 120/76 mmHg. Pulse 80/minute regular, temperature 37 degree centigrade. Rest of the physical examination was within normal limit, P/v Examination revealed multiple tears over the vestibule, introitus and prox. urethra and trigone. Anterior vaginal wall was torn. Posterior rectal mucosa could be visualized through a hole in posterior vaginal wall.

## LABORATORY INVESTIGATION

CBC. Hb 13.0 gm%  
Tc 7600/cmm DC - N70, L20, M1, E2.  
ESR 20 mm/HR

Urine - NAD

Urine C/S : Mixed infection

Blood Sugar 7.6 mmol/L

Urea 3.8 mmol/L

CXR  
Abd. X-ray } - NAD

Cystoscopic Examination Anterior- lateral wall of rectum and post-vaginal wall missing.  
- Proximal urethra, bladder neck and vaginal part of trigon were involved in fistulation.

Diagnosis- Urothrovesico vaginal fistula :- rectovaginal fistula.

Management- Urinary Diversion through "Ileal conduit" ( ureteroileostom ) damaged. 15-20 cm long terminal ileum and one foot from ileo-caecal valve with its blood supply intact was isolated. The left ureter was brought through pelvic mesocolon and rt. one dissected. Anastomosis was performed between ureter and the intestine by Wallace's technique. End to end anastomosis, was done, the distal end of the ileal conduit was brought out through a stab incision in the right lower abdomen and a nipple ileostomy was fashioned.

She made good post-operative recovery without any complication on follow - up subsequently. She was happy with the operation except that ileostomy (Urostomy) bag was not readily available and had to be imported from Bangkok.

## CASE - V

Mrs. S. B., 45 year old female from Birgunj was admitted with history of continous dribbling of urine on the 12th day of abdominal hysterectomy for fibroid uterus on Nov. '86 in Duncan Hospital, India. Clinical Examination revealed no physical abnormality except continous dribbling of urine through vagina.

Laboratory investigation showed-

Hb- 13 gm% Tc 8,600/cmm. N58, L27, M3, B4, E2.

Urine analysis was within normal range

Urine culture and sensitivity showed E. Coli sensitive to nalidixic acid.

X-ray Abd. } - NAD  
X-ray chest }

Intravenous urography showed, hydronephrosis and hydroureter on right side with leakage of dye in the pelvis area.

Methylene blue irrigation of bladder showed no evidence of vesico urinary fistula.

A diagnosis of uretero-vaginal fistula on (Rt.) side was made. (R) Utero-neocystostomy was done.

- Laparotomy performed.

(R) Ureter identified and dissected right up to the site of obstruction and divided at that level. Uretero-neocystostomy through Politano Lead better technique was achieved with a radiovac drain.

Post-operatively she was "dry" and in follow-up clinic she was ever so grateful to T. U. Teaching Hospital.

#### CASE - VI

Miss H. B., 24 years old female was admitted on 04/12/2 with c/o continuous dribbling of urine since childhood associated with fever and rigors and failure to thrive. She had repeated attacks of urinary tract infection in the past and was managed with antibiotics & urinary antiseptic. This time she was referred by a doctor for her urinary symptoms and particularly Lt. sided loin pain.

Her physical examination revealed stunted growth weighing 35 kg and 4' high. She was anaemic. B. P. 100 / 70, Pulse 90 / minute regular. Other clinical examination was unremarkable.

P/v- very narrow urethra

Lab. - Inv. Hb. - 12.29 gm/100 ml.

ESR 55 mm/HR

Blood urea 5.8 mmol/L

BT - 2 min.

Sugar 7.2 mmol/L

CT 6'

Se. creatinine - 160 mmol/L

Na 130 mEq/K3.7 meq /L.

IIVU : Non functioning (Rt.) Kidney with hydronephrosis and Hydroureter (Lt.) Kidney.

Urine C/S E. coli & was negative for AFB on 3 occasions.

Cystoscopy examination : Virtually no bladder capacity,

Ureteric orifices were not identified.

Micturating cystourotherogram Grade 3 reflux with little bladder capacity-  
Dye test was equivocal

After ascending studies and cystogram- she went into anuria for 13 hours. Blood urea rose to 18.5 mmol/L, Se. creatinine 389 mmol/L impending acute renal failure. Emergency nephrostomy (Lt.) was done on the following morning. Se-creatinine & bl. urea level came to normal. However she could not pass urine per urethra/vagina. So nephrostomogram was done after 10 days, which revealed 2 small stones 1 cm each in diameter causing

left ureteric obstruction. Uretero lithotomy operation was done. She could not however pass urine per urethra. The poor girl underwent ureterosigmoidostomy months after admission. She became completely OK after this operation. She was put on soda bicarb. Follow - up urethrogram and I. V. U. done.

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