

# Clinical Study to Evaluate the role of Ultrasonography and Radio-Imaging in Urinary Disease.

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**Abstract :** Urinary disease are very common in our society . Urinary system constitute of kidney , ureter , urinary bladder and urethra . Various abnormalities occur in these organ due to many reason like infection , inflammation, metabolic abnormalities, neoplastic changes, trauma etc. These abnormalities lead to various physical problem ending into death many time .The abnormalities of urinary system can be diagnosed by hematological examination , urine analysis, radiological examination and histopathological examination .Radiological examination provide wide range of diagnosis of disease of urinary system of almost all origin . Although various radiological technique like X-ray ( plain and contrast ), USG , CT scan, MRI and many others are available .But in present study X-ray ( plain and contrast ) and USG were used for diagnosis of disease of urinary system because of its easy availability and affordability.

## Introduction :-

It is an established fact that urinary disease are showing an increasing incidence all over the worlds as more & more cases are being detected these days due to the help of improved diagnostic modalities .Patients with urinary disease are quite common in clinical practice. Some common causes of urinary disease are like calculi, ureteric stricture, tumour B.P.H. etc. In this study we have taken 100 cases which are come for investigation in our section of Radiology.

## Aim :-

The main aim of this study is to asses the clinical presentation in various urinary disease & evaluation of urinary disease case through ultrasonography & Radio imaging (I.V.P.)

## Material & Methods :-

**Intravenous Urography** - The intravenous urogram is the classic routine investigation of uro radiology. Main indication of I.V.P is for renal & ureteric calculi, ureteric fistulas, stricture & complex urinary tract infection (including tuberculosis). The IVU consist of a series of plain film taken after administration of an intravenous injection of a water soluble iodine containing contrast medium patient was prepared with period of 4 hr starvation & fluid deprivation & the bowel purged with a strong laxative.

**Ultrasonography** ultrasound used on transmission of sound wave with particular frequency. Through body structure & ultimately formation of images on computer screen through reflected wave formation of images or echogenesity depend on how much ultrasound wave absorb or reflect through tissue.

**observation & Result :-****1. Distribution of the study group depending upon the presenting complain of the patients.**

	<b>Presenting complain of Patient</b>	<b>Male Patient</b>	<b>Female Patient</b>	<b>Percentage of Patients</b>
1.	Asymptomatic	13	10	23%
2.	Dysuria	12	09	21%
3.	Pain in right or left lumber & pelvic region	20	14	34%
4.	Anuria	12	10	21%
	<b>Total</b>	<b>57</b>	<b>43</b>	<b>60%</b>

In this study a total of 100 patients were studied in which there was 57 male & 43 females showing were predominance of urinary disease in males than females with the male : female ratio 3:2.

**2. Distribution of Study group depending upon the classification of urinary diseases.**

<b>Classification of Urinary disease</b>	<b>Male Patients</b>	<b>Female Patients</b>	<b>Total Patients</b>
1. Urethral structure	09	04	13
2. Stones	12	12	24
3. PUJ obstruction	06	04	10
4. Papillary necrosis	03	02	05
5. Infection tuberculosis, infective stricture etc	04	02	06
6. Prostate problems - prostatic hyperplasia & Prostate Cancer	20	00	20
7. Trauma	02	05	07
8.gynaecological cases- endometrosis, PCOD etc.	00	10	10
9. Tumour - Renal cell carcinoma & transitional cell carcinoma	02	03	05
<b>Total</b>	<b>58</b>	<b>42</b>	<b>100</b>

In this study a total 100 patient were studied by IVP & ultrasonography. Out of these 100 patients 24 patients (24%) has stone, 20 Patients (20%) had prostatic hyperplasia, 13 patients (13%) had urethral stricture, 10 patients (10%) had endometriosis & 10 patients (10%) has PUJ obstruction, 07 patient (7%) had Trauma, 06 patient (6%) had infection, 5 patient (5%) has Tumour, 05 patient (5%) had papillary necrosis.

**DISCUSSION & CONCLUSION :-** The commonest Obstructive uropathies observed in the present study was calculi (24%) following by B.P.H. (20%)

The comments mode of presentation of patients was pain in right or left lumber & Pelvic region. Although many advance technique are also available but the technique used in the study are simple , safe , effective and widely available for diagnosis of urinary disease.

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