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Research article

Medical research

A prospective observational study of urinary incontinence in hemiplegia and prostate cancer patients with treatment regimen

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ABSTRACT

Urinary incontinence is a condition in which urgency of urine takes place without any intimation in a condition with effects of stroke, epilepsy, prostate cancer and often makes a sense which results in cause of depression and psychiatric illness. Renal incontinence occurred unknowingly to the person and leads to severe infections; it's also a type of disease known as bed wetting.

Materials and methods

Study design

Our study was hospital based prospective observational study conducted in tertiary care hospital.

Study procedure

The study was done by collecting information by using patient case sheets, based on the data a questionnaire is prepared according to the guidelines of WHO and HRQOL. Nearly data of 72 patients were included in the study with all the details of past medical history and the treatment regimen and laboratory parameters with frequency are collected.

Sampling method

All the patients of age above 36-70 years are included in the study with renal incontinence as a major condition.

Study duration

The duration of the study was 11 months from September 2016 to August 2017.

Study materials

Patient consent form

Consent was collected by using self designed patient consent form and consent was made into three languages (English, Telugu and Hindi).

Ethical approval

The study was approved by institutional ethical committee and tertiary care hospital.

Data analysis

A data was analyzed by demographic details, reason for admission, duration of therapy, causes of renal incontinence, side effects and complications with therapies and therapy outcome with laboratory parameters was analyzed by using different statistical software's and the result was summarized.

Results

Out of 81 patients 72 patients are willing to give the information regarding the condition out of which 18 females, 54 males are included in the study with a mean age of 22-60 years and suffered with Hemiplegia, seizures and prostate cancer (prostatomegaly) and the treatment regimen was tabulated as below.

Discussion

Out of 72 patients who are suffering with renal incontinence are of age group 22-60 and both sexes with secondary education level and nutritional level of mostly average. The reasons for admission in the hospital are due to Hemiplegia and diabetes mellitus. The duration of renal incontinence is higher in below 3 years. The classes of drugs prescribed for renal incontinence are mostly anticholinergics and alpha blockers. The complications are mostly due to hemiplegic drugs and urinary tract infections, the treatment for renal incontinence is Darifenacin and all the laboratory parameters and therapies, counseling aids was analyzed and discussed.

Conclusion

Our study concluded that the people suffer with renal incontinence is due to Hemiplegia, prostate cancer and seizures. The condition is mainly due to drugs used for Hemiplegia. The side effects, complications and surgeries cannot show any effect. The main stay is to counsel the patient and take measures to overcome renal incontinence. The physician should know the exact cause of renal incontinence before providing the treatment. As we are the clinical pharmacist we should give the detail description of the condition to maintain the life better to overcome renal incontinence.

Keywords: Hemiplegia, Renal incontinence, Prostate cancer.

INTRODUCTION

Renal incontinence is an involuntary loss of urine that is objectively demonstrable and is a social or hygienic problem. Affects physical, psychological, social well being which reduces the quality of life. Though it occurs more often as people get older, urinary incontinence isn't an inevitable consequence of aging. If urinary incontinence affects your daily activities, don't hesitate to see your doctor. For most people, simple lifestyle changes or medical treatment can ease discomfort or stop urinary incontinence. The main types of incontinence are stress incontinence, urge incontinence, overflow incontinence, functional incontinence [1-5].

Stress incontinence

Urine leaks when people exert pressure on your bladder by coughing, sneezing, laughing, exercising and lifting something heavy.

Urge incontinence

This is a condition where sudden, intense urge to urinate followed by an involuntary loss of urine. People may need to urinate often, including throughout the night. Urge incontinence may be caused by a minor condition, such as infection, or a

more-severe condition such as a neurologic disorder or diabetes.

Overflow incontinence

Frequent or constant dribbling of urine due to a bladder that doesn't empty completely.

Functional incontinence

A physical or mental impairment keeps people from making it to the toilet in time [6-10].

MATERIALS AND METHODS

Study design

Our study was hospital based prospective observational study conducted in tertiary care hospital.

Study procedure

The study was done by collecting information by using patient case sheets, based on the data a questionnaire is prepared according to the guidelines of WHO and HRQOL. Nearly data of 72 patients were included in the study with all the details of past medical history and the treatment regimen and laboratory parameters with frequency are collected [11-15].

Sampling method

All the patients of age above 36-70 years are included in the study with renal incontinence as a major condition.

Study duration

The duration of the study was 11 months from September 2016 to August 2017.

Inclusion criteria

- Patients suffered with stroke
- Patients suffering age above 36
- Patients of both sexes.

Exclusion criteria

- off-sane minded
- Pediatrics, coma tic patients

STUDY MATERIALS

Patient consent form

Consent was collected by using self designed patient consent form and consent was made into three languages (English, Telugu and Hindi).

Ethical approval

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Data analysis

A data was analyzed by demographic details, reason for admission, duration of therapy, causes of renal incontinence, side effects and complications with therapies and therapy outcome with laboratory parameters was analyzed by using different statistical software's and the result was summarized.

RESULTS

Out of 81patients 72 patients are willing to give the information regarding the condition, out of which 54 were males, 18 were females are included in the study, suffered with Hemiplegia, seizures and prostate cancer (prostatomegaly) and the treatment regimen and the therapeutic outcomes with side effects was tabulated as below [16-18].

Table 1: Shows Demographic details of the patient which include the age, sex, marital status, nutritional status and employment.

Demographics	No. of patients	Percentage (%)
Age		
22-30	08	11.1
30-40	12	16.6
40-50	25	34.7
50-60	27	37.5
Sex		
Male	54	75
Female	18	25
Marital status		
Married	64	88.8
Unmarried	08	11.1
Education level		
Primary	24	33.3
Secondary	36	50
Tertiary	12	16.6
Nutritional status		
Poor	09	12.5
Average	35	48.6
Excellent	28	38.8
Employment		
Employed	17	23.6
Unemployed	55	76.3

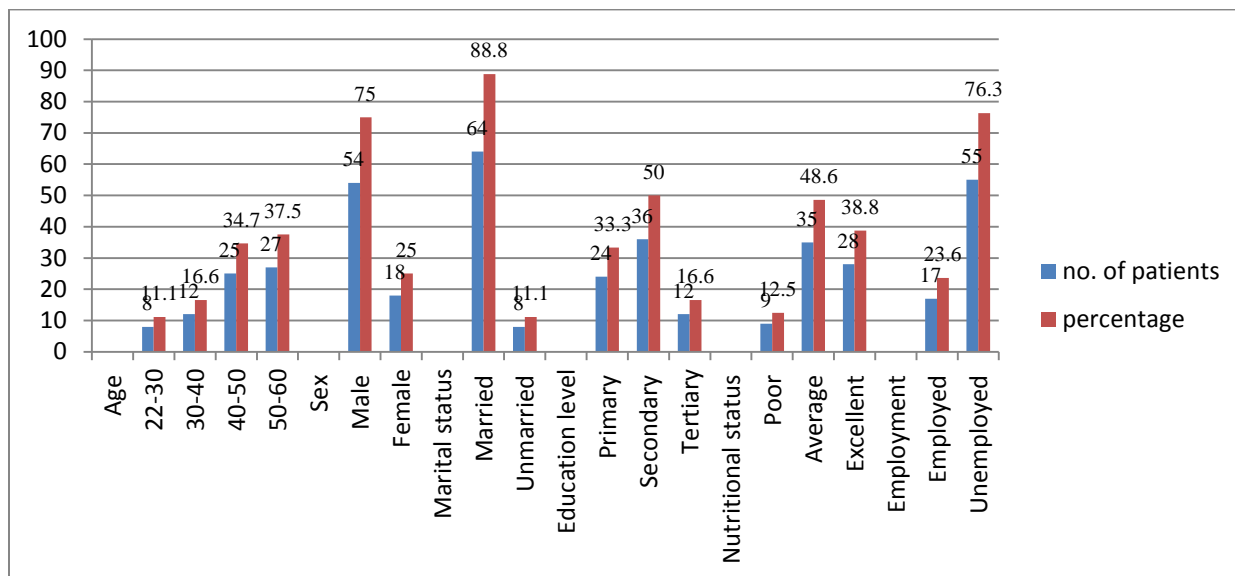


Table 2: Shows the reasons for admission of patients in the hospital.

Reasons for admission	No. of patients	Percentage
Hemiplegia	23	31.9
Diabetes mellitus	21	29.1
Prostate cancer	12	16.6
Psychiatric illness	11	15.2
Anxiety	05	6.9

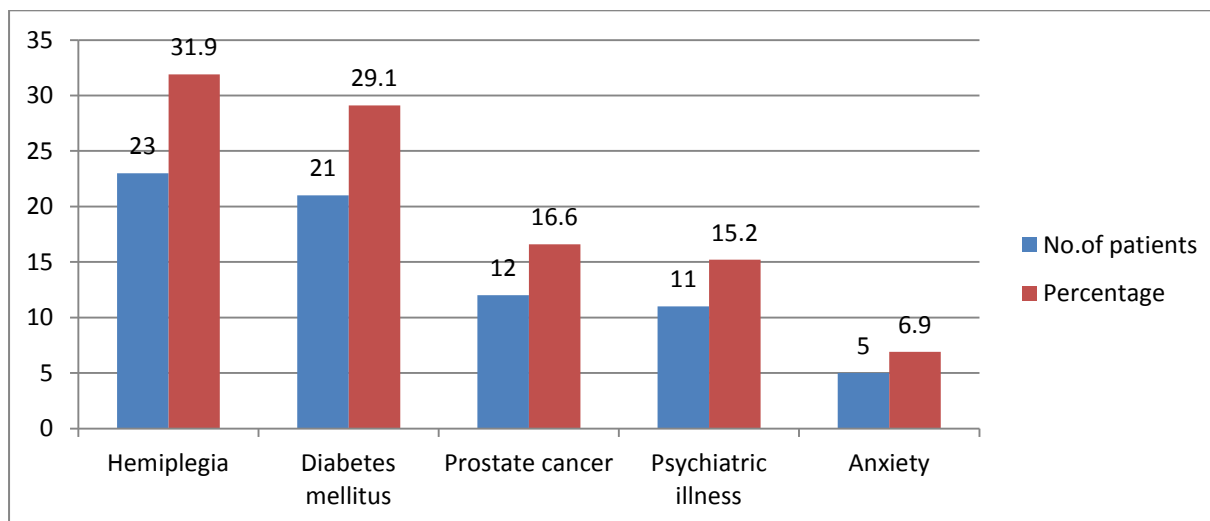


Table 3: Shows the duration of incontinence patients are suffering with percentage

Duration of incontinence	No. of patients	Percentage
6 months	13	18
1 year	14	19.4
Below 3 years	21	29.1
Below 6 years	16	22.2
Above 6 years	08	11.1

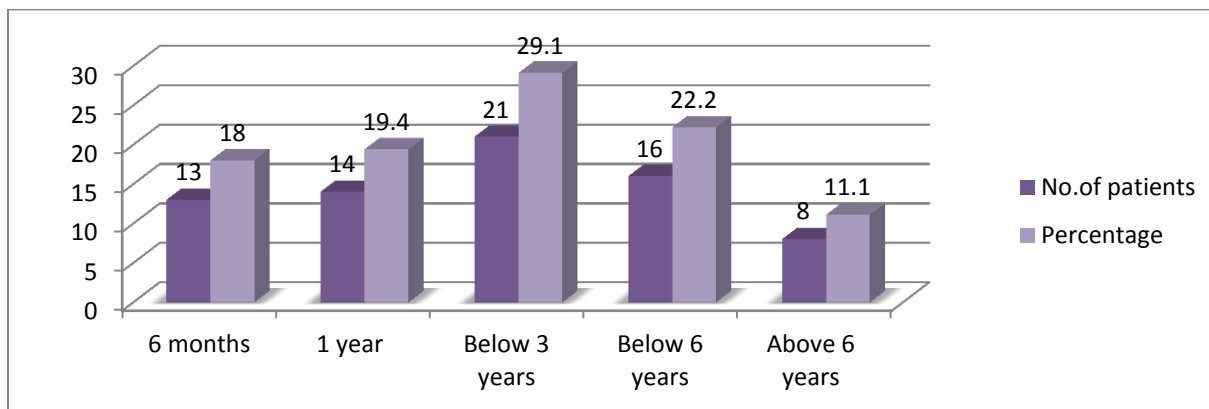


Table 4: Shows the class of drugs prescribed for renal incontinence with percentage

Classes of drugs prescribed for incontinence	No. of patients	Percentage
Alpha blockers	70	97.2
Anti cholinergic	72	100
Anti muscarnic	46	63.8
Sex hormone	29	40.2
Beta 3 adrenergic agonist	72	100

Table 4: Shows the class of drugs prescribed for renal incontinence with percentage

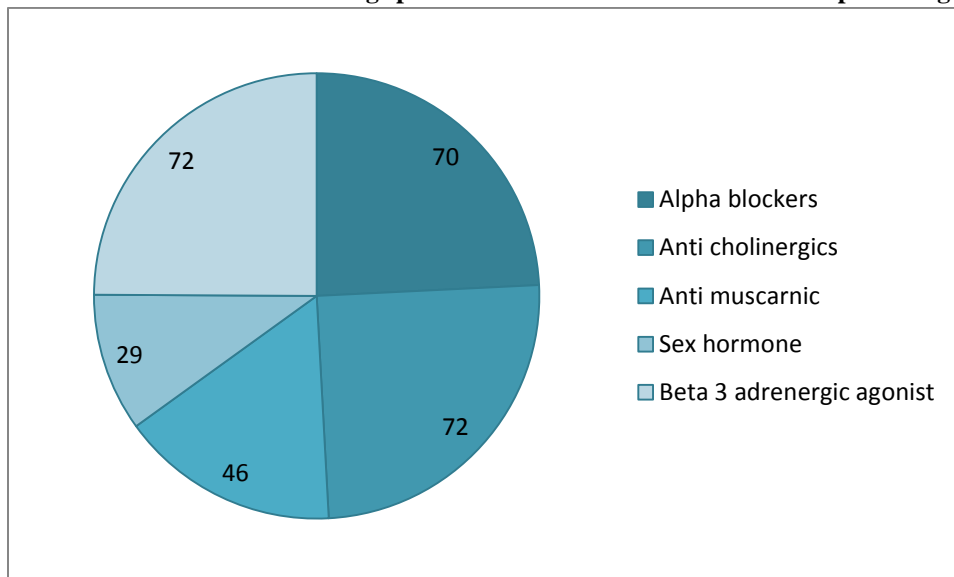


Table 5: Shows the complication occurred due to incontinence in the people.

Complications due to incontinence	No. of patients	Percentage
Blood clot	14	19.4
Bowel blockages	12	16.6
Pneumonia	03	4.1
Urinary tract infections	25	34.7
Renal stones	18	25

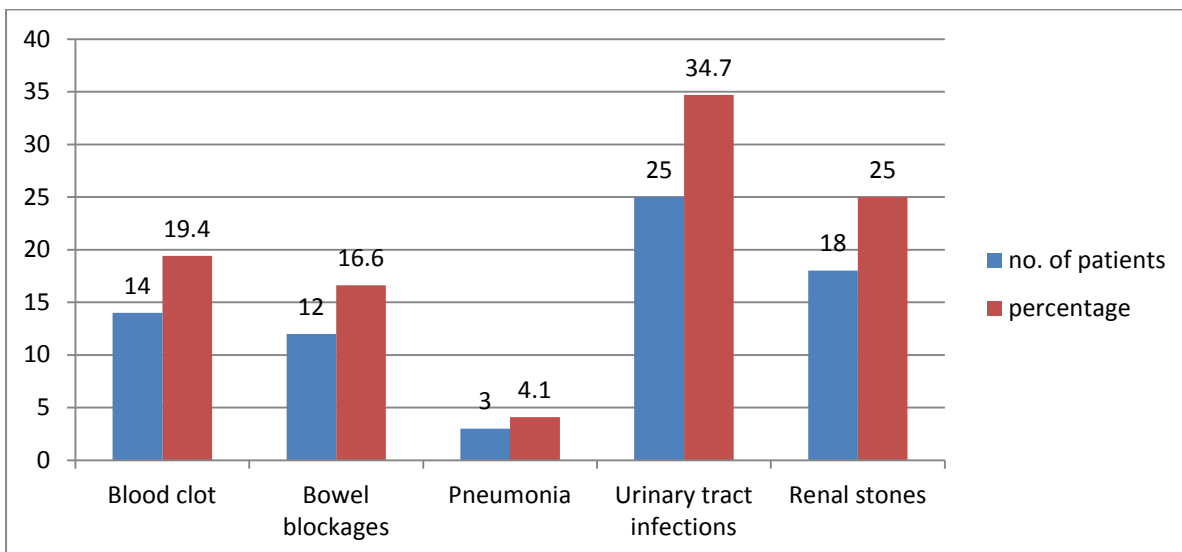


Table 6: Shows the causes of renal incontinence according to the condition.

Causes of incontinence	No. of patients	Percentage
Urinary tract infections	13	18
Prostate cancer	11	15.2
Neurological disorders	12	16.6
Changes with age	10	13.8
Menopause	07	9.7
Hysterectomy	05	6.9
Pregnancy	03	4.1
Child birth	03	4.1

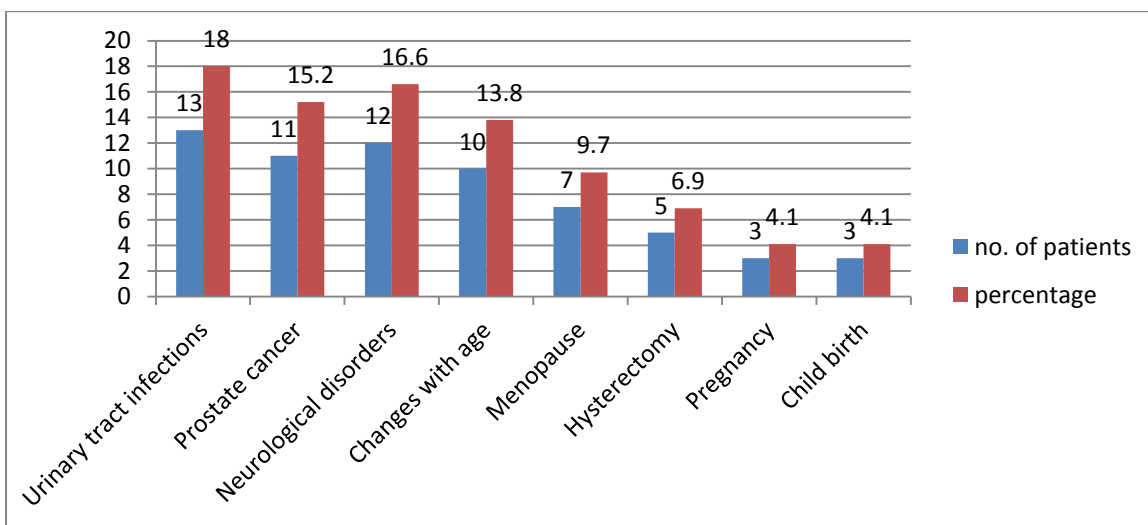


Table 7: Shows the current therapy given for renal incontinence to manage it.

Current therapy	No. of patients	Percentage
Darifenacin	72	100
Doxazosin	69	95.8
Dutasteride	55	76.4
Tamsulosin+dutasteride	64	88.9
Mirabegron	72	100

Terazosin	72	100
Tolterodine tartrate	53	73.6
Silodosin	29	40.3
Solifenacin succinate	38	52.8

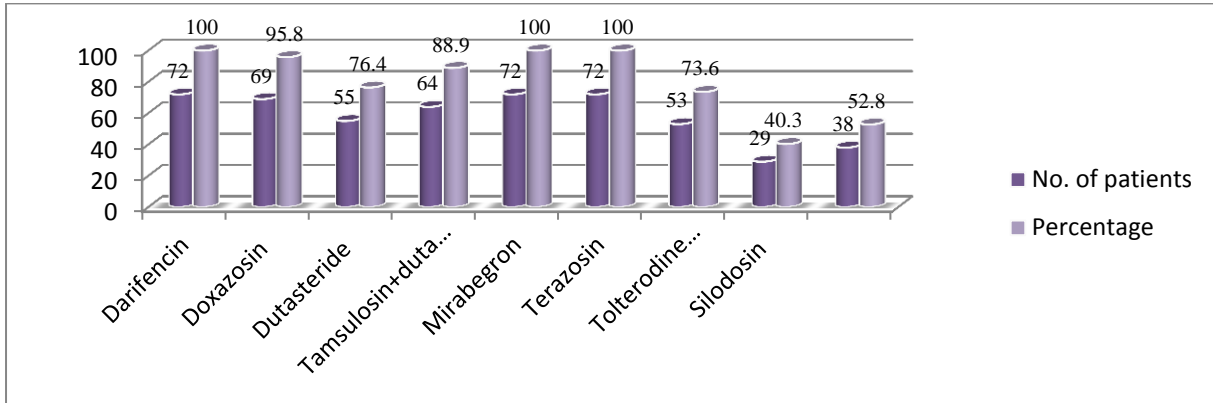


Table 7: Shows the laboratory parameters performed to know the cause of incontinence.

Laboratory parameters	No. of patients	Percentage
Urea	72	100
Creatinine	72	100
Casts	72	100
Urine protein	72	100
Epithelial cells	72	100
Urine culture	54	75
Cystoscopy	45	62.5
Urodynamic studies	63	87.5
Cystogram	36	50

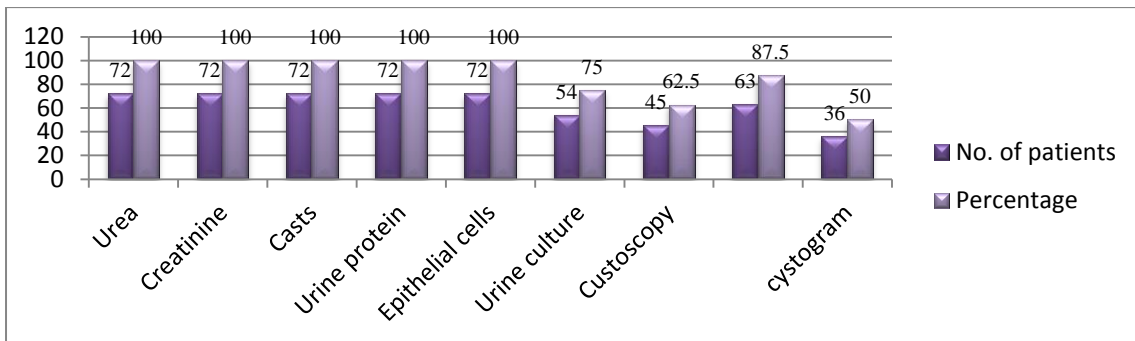


Table 8: Shows the therapies for renal incontinence for inhibiting the condition of patient.

Therapies for renal incontinence	No. of patients	Percentage
Regain bladder control	18	25
Kegel exercises	27	37.5
Train your bladder	72	100
Magnesium	45	62.5
Vitamin D	09	12.5
Pessary	18	25
Quit smoking	00	00
Acupuncture	16	22

Hypnotherapy	45	62.5
Cut out caffeine	18	25
Stay hydrated	54	75
Get fit	00	00
Biofeedback	07	9.7

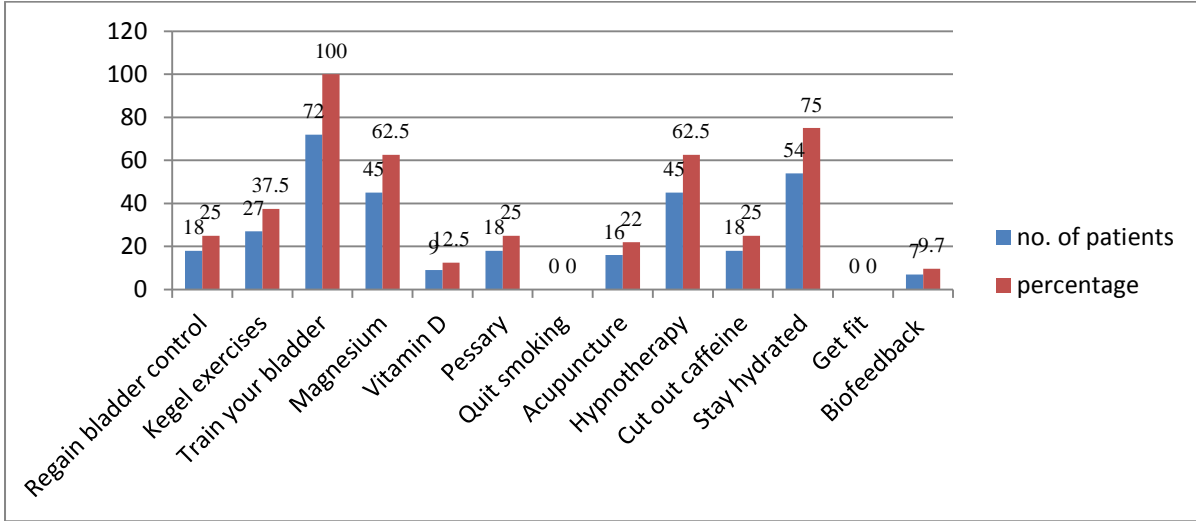


Table 9: Shows the surgeries performed for the patients to overcome renal incontinence with outcome.

Surgeries	No. of patients	Outcomes	Percentage
Botulinum toxin A injection	1	Effective	1.3
Sacral nerve stimulation			
Posterior tibial nerve stimulation	5	Effective	07
Augmentation cystoplasty			
Urinary diversion	7	No change	9.7
Clean intermittent catheterisation			
Indwelling catheterisation	5	Failure at 1 year	07
Incontinence products			
	18	Effective	25
	3	Infection	4
	9	Infection	12.5
	27	Not shown any effect	37.5

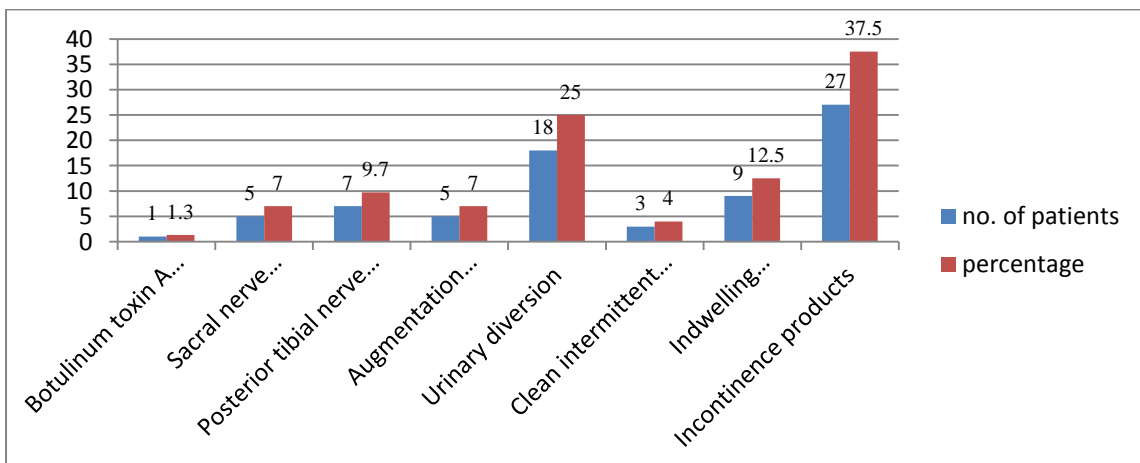


Table 10: Shows the major drugs that causes renal incontinence and used for Hemiplegia.

Drugs which causes renal incontinence	No. of patients	Percentage
Levetriacetam	45	62.5
Piracetam	27	37.5
Phenytoin	54	75

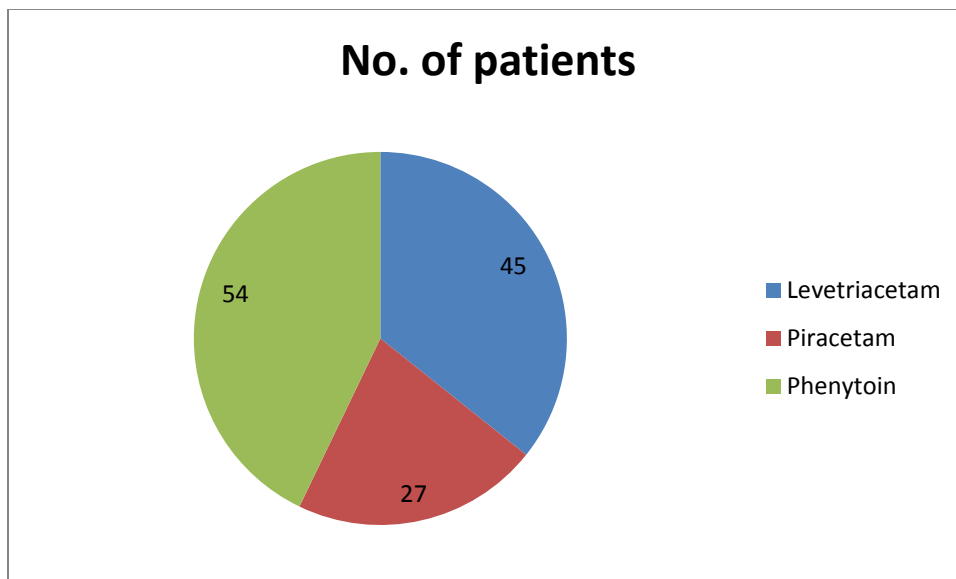


Table 11: Shows the counseling to the patients suffering with renal incontinence.

Counseling	No. of patients	Percentage
Food incontinence	72	100
Stress incontinence	72	100
Cold foot cystitis	72	100
Muscle weakness	54	75
Nerve damage	27	37.5
Mixed incontinence	36	50

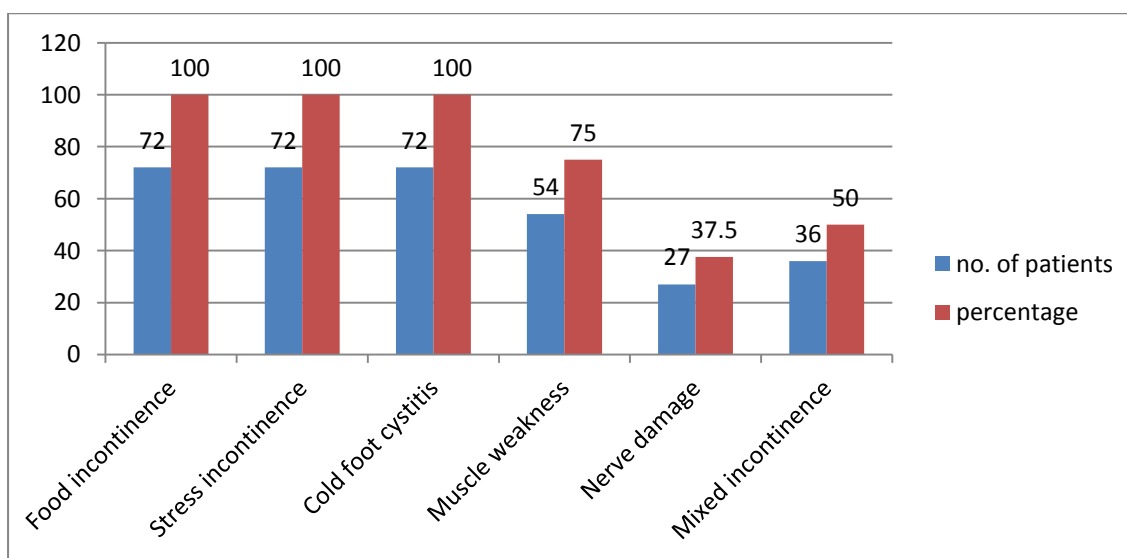


Table 12: Shows the interactions observed through the drugs given for renal incontinence.

Interactions	No. of patients	Percentage
Rashes	00	00
Skin infections	05	07
Sores	12	16.6
Glaucoma	00	00
Dementia	27	37.5
Ulcerative colitis	Not seen	-----
GERD	Not seen	-----

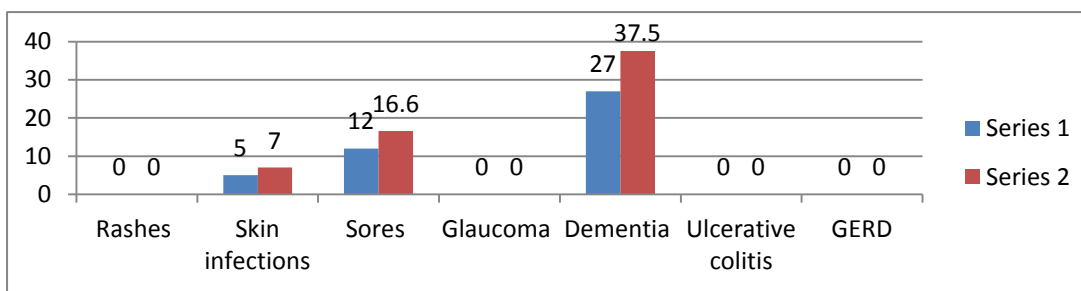


Table 13: Shows the therapy duration to overcome renal incontinence.

Duration of therapy	No. of patients	Percentage
3 months	27	37.5
Above 1 year	54	75
Above 3 years	54	75
More than 5 years	21	29

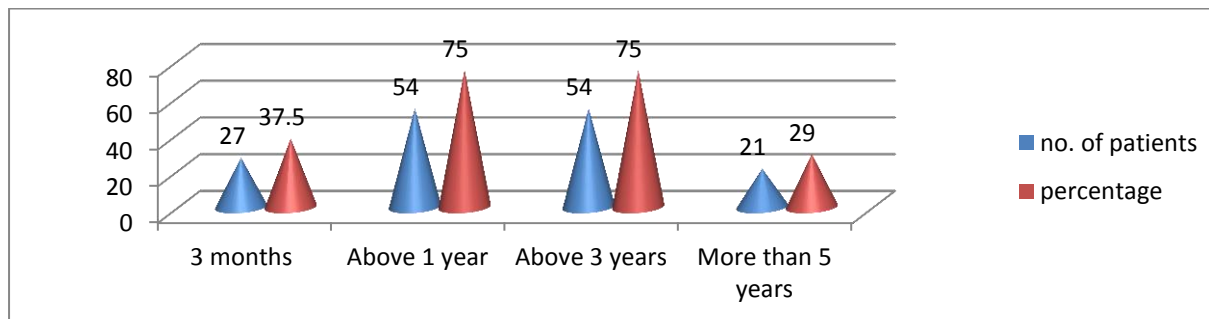
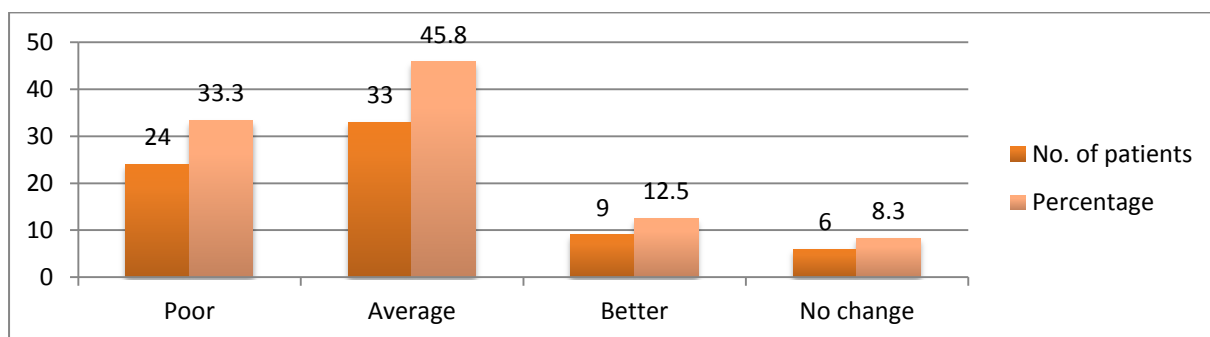


Table 14: Shows the therapeutic outcomes for the treatment given for renal incontinence.

Therapeutic outcomes	No. of patients	Percentage
Poor	24	33.3
Average	33	45.8
Better	09	12.5
No change	06	8.3



DISCUSSION

Out of 72 patients who are suffering with renal incontinence are of age group 22-60(100%) and both sexes (100%) with secondary education level and nutritional level of mostly average. The reasons for admission in the hospital are due to Hemiplegia (31.9%) and diabetes mellitus (29.1%). The duration of renal incontinence is higher in below 3 years (29.1%) and below 6 years (22.2%). The classes of drugs prescribed for renal incontinence are mostly anticholinergics (100%) and alpha blockers (97.2%). The complications due to renal incontinence are mostly urinary tract infections (34.7%) and renal stones (25%). The causes of incontinence are mostly urinary tract infections (18%) and neurological disorders (16.6%). The current therapy for incontinence, the drugs mostly include Darifenacin (100%), Mirabegron (100%) and Terazosin (100%). The laboratory parameters mostly performed are mainly renal examinations and electrolytes (100%) and urodynamic studies (87.5%). The therapy for renal incontinence which are mostly performed are train your bladder (100%) and magnesium, hypnotherapy (62.5%). The surgeries mostly performed are incontinence products which doesn't show any effects (37.5%) and urinary diversion which is effective (25%). The drugs which mostly cause renal incontinence are phenytoin (75%). The counseling for incontinence is mostly stress incontinence food incontinence and cold foot cystitis (100%). The drug interactions mostly observed are dementia (37.5%). The

duration of therapy to treat incontinence is higher in above 1 and 3 years (75%) and the therapeutic outcomes for incontinence seen is average (45.8%) and the therapies and counseling aids are given to the patients all the readings tabulated as above with frequency.

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CONCLUSION

Our study concluded that the people suffer with renal incontinence is due to Hemiplegia, prostate cancer and seizures. The condition is mainly due to drugs used for Hemiplegia. The side effects, complications and surgeries cannot show any effect. The main stay is to counsel the patient and take measures to overcome renal incontinence. The physician should know the exact cause of renal incontinence before providing the treatment. As we are the clinical pharmacist we should give the detail description of the condition to maintain the life better to overcome renal incontinence.

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