



Case Report on Hydronephrosis

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Abstract

Introduction: Hydronephrosis is a disease condition caused due to the back up of urine. Hydronephrosis is a swelling of one or both kidneys. The word 'Hydronephrosis' is derived from the Greek word that is Hydro from 'Hudor' meaning water 'nephros' from 'nephros' meaning kidney and '-osis' indicates the swelling.

Clinical Findings: Blood in urine or insufficient urine production, Hypertension, Pain in abdomen.

Diagnostic Evaluation: CBC: -Hb-13.5gm%, Total MCHC-35.5, RBC count-4.68 millions/cumm. KFT: - Urea-15, Creatinine-0.8, Sodium (Na⁺)-134, Potassium (K⁺)-5.1 LFT :- ALT (SGPT) - 44, Albumin -3.1 Peripheral Smear - Patient don't have any peripheral Smear.

Ultrasonography :- Swelling on Right Kidney.

Therapeutic Intervention: Urine Catheterization. Inj. Ceftrazone, Inj. Pan, Inj. Emset, Inj. Tramadol, Inj. Lasix, Inj. aNeomal.

Outcome: After treatment client shows improvement. His pain in abdomen were relieved and the back up of urine. Is in continuation with the normal routine as verbalized by the client.

Conclusion: Patient was admitted to make surgery ward nb.44 A.V.B.R.H. with chief complaint of Pain in abdomen after getting appropriate treatment his condition is well and improve.

Keywords: Hydronephrosis; Dilatation; Renal Pelvic

Introduction

Hydronephrosis is a condition or a phase in which one or both kidneys become swollen or stretched. The blockage may be in the left or on the right kidney it may cause because of the blockage in the urinary system [1].

It may usually be caused by the obstruction of the free flow of the urine from the kidney. This leads to the progression and atrophy of the kidney. It was first discovered as a spontaneous autosomal recessive trait in mice at "Jackson Laboratory" in the year of 1970's on 25 April-2006. At present the disease is found in countries all over the world. The disease is found in the client of kidney disease [2].

A condition characterized by an excess of fluid in a kidney as a result of a urine back-up. A blockage in the tube that links the kidney to the bladder causes hydronephrosis (ureter). A kidney stone, an infection, an enlarged prostate, a blood clot, or a tumors are all possible reasons [3]. Grade 0 no dilatation, calyceal walls are opposed to each other grade 1 (mild) renal pelvis dilatation without calyceal dilatation (can also occur in the extrarenal pelvis). Dilatation of the renal pelvis (mild) and calyces no parenchymal atrophy grade 2 (mild) (pelvicalyceal pattern is retained) .No grade 3 (moderate) parenchymal atrophy significant dilatation of the renal pelvis and calyces Flattening of papillae and blunting of fornices [4,5].

There may be some minor cortical thinning. Gross dilatation of the renal pelvis and calyces, which seem inflated lack of borders between the renal pelvis and calyces, grade 4 (severe). Cortical thinning is seen as a sign of renal atrophy [6]. All grading systems for hydronephrosis .Patient become weak due to loss of appetite and his facial expression's become dull he experienced the pain in urination and abdomen, patient due to the back up of urine he feels the pain in urine and also blood may come in urination the word 'hydro' is related to the water and 'nephron' related to the kidney [7].

Patient identification

A male patient of 40 years from wathoda (District- yawatmal) admitted in surgery ward No-44; A.V.B.R.H on 7th November 2021 with complain of pain in abdomen. He is 57 kg and His height is 170cm. He is farmer by his occupation, and he is married and He stays in a nuclear family.

Present medical history

A male patient of 40 years Admitted in A.V.B.R.H on 7th November 2021. With the chief complaint of pain in abdomen. (Right region) He was admitted in surgery ward No-44; He is weak and inactive on admission.

Past medical history

Mr. Hanuman Pal, who is admitted in A.V.B.R.H having a past medical history of hypertension, and pain in urination, also blood in urination and having acute pain in abdomen.

Family history

There are four members in his family. He play's major Role in his family, my patient was diagnostic to have right hydronephrosis. All other members in His family were not having any complaints related to health issue except my patient who is being admitted in the hospital.

Past intervention and outcome

My patient was diagnosed to have hypertension and pain in urination from that time onwards, he was admitted in hospital time to time for his treatment, after having treatment he found recovery in his health.

Clinical finding

Pain in abdomen, weakness, blood in urine, fever due to urinary tract infection.

Etiology

Hydronephrosis is usually caused by a blockage in the urinary tract or something interfering with the urinary tract's regular functioning. The kidneys, bladder, ureters (tubes that run from the kidney to the bladder), and urethra make up the urinary tract (the tube that carries urine out of the body).

Physical examination

There is not many abnormalities found in head to Toe examination, the patient is lean and thin and having dull facial expressions. He is not so co-operative; he is abnormally distension having palpable kidney and also having palpable bladder.

Diagnostic assessment

CBC: -Hb-13.5gm%, Total MCHC-35.5 RBC count-4.68 millions/cu mm, KFT :-Uria-15, Creatinine-0.8, Sodium (Na⁺)-134, Potassium (k⁺)-5.1, LFT :- ALT (SGPT) - 44, Albumin -3.1,PERIPHERAL SMEAR - Patient don't have any peripheral Smear, ULTRASONOGRAPHY :- Swealing on Right Kidney.

Therapeutic intervention

01. INJ. Ceftraczone - frequency: - BD, 02. INJ. EMSET - frequency- TDS, 03. INJ. NEOMAL - frequency -TDS, 04. INJ. PAN - frequency -OD, 05. INJ. Tramadol - frequency - TDS

Discussion

Over the last ten years, abnormal renal vessels have become increasingly common. This is due in part to the increased use of angiography and other imaging modalities over the last few years [8]. To understand the common defects that can occur, some knowledge of the embryology of the renal arteries is required. The renal blood supply undergoes successive changes in its upward migration due to the complicated development of the kidneys, which includes the three stages of pronephros, mesonephros, and metanephros, as well as the migration of the definitive kidney (metanephros) from

the pelvic region to the region of the posterior abdominal wall (in the lumbar area) [9]. Because arterial degeneration begins at the metanephros' cephalic pole, the segmental branch to the lower renal pole is the one that is most likely to survive as an auxiliary artery [10].

Conclusion

Hydro nephrosis is a rare case found in India, it is very important to diagnosed in earlier stage so that a client should not developed complications in his daily routine. It is also very important to prevent a client who is suffering from disease like hydronephrosis. Proper diagnostic treatment should be given to the client. As my patient is admitted in A.V.B.R.H the medical team work for his betterment and he shows improvement in his health and the treatment was still going on till my last date of care.

Ethical Clearance

Not required.

Author's Contribution

All the authors contribute in the work.

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