

Original research article

A study of ureteric stricture

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Abstract

In our part of the world, ureteric strictures are rather prevalent. Renal calculi are rather prevalent, especially in this region of coastal India, and are often thought of as one of the primary causes of ureteral strictures. This is especially true in this particular portion of India. The fact that the surgery used to treat the condition is also considered to be one of the primary causes of the ureteral stricture is rather ironic. In our nation, TB is one of the most common infectious diseases, and it is also one of the primary causes of death from infectious diseases. As a result, this study was carried out in order to gain a grasp of the aetiology, as well as the underlying pathology and the most prevalent therapy for the condition.

Keywords: Aetiology, pathology, management, ureteric stricture

Introduction

Ureters are tubes with strong walls that connect the kidneys to the urinary bladder. Urine travels via the ureters from the kidneys to the urinary bladder. Each ureter has a length of roughly twenty to twenty-five centimetres and a diameter of approximately three millimetres. It is primarily made up of three components, which are the pelvis of the ureter, the abdominal region, and the part that is located in the pelvis. The ureter's pelvis is a funnel-shaped dilatation of the upper section of the ureter that is generated within the renal sinuses by the union of the main calyces. The pelvis of the ureter is also known as the ureteral sphincter. Following a downward and somewhat medially directed path beneath the peritoneum, the abdominal section enters the pelvis after crossing over the main arteries. The pelvic region is further divided into three sections. The first portion is the vertical part, which travels downhill in a vertical direction. The second section is known as the oblique section, while the third section is known as the intravesical section. The ureter has three constriction points throughout its length. The first one is when it pierces the bladder, the second one is when it is at the level of the pelvic brim, and the third one is when it is at the level of the pelvic ureteric area, which corresponds to the lower pole of the kidneys. From the outside in, a histological examination reveals that it has three layers: the mucous layer, the muscle layer, and the fibrous layer.

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Aims and Objectives

To investigate and have a better knowledge of the aetiology, as well as the underlying pathology and the most prevalent treatment option for ureteric strictures, is the goal of this study.

Materials and Methods

This study was done Government medical College, Kottayam, Kerala. This study was done in the Department of Urology.

The study was done from May 2021 to October 2021.

This study was done using a sample size of Thirty Patients.

Inclusion criteria

1. Patients with Radiological evidence of the stricture were selected.

Exclusion criteria

1. Patients with extrinsic compressions.
2. Repeated stricture cases were neglected.

Results

Table 1: Mean Age of the Patients

| Total | Mean Age | Standard Deviation |
|-------|-------------|--------------------|
| 30 | 44.58 years | ± 3.27 years |

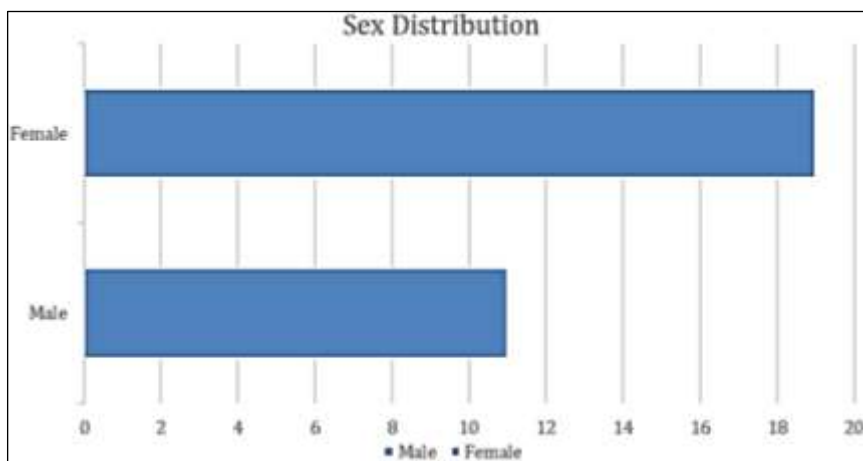


Fig 2: Sex Distribution

Table 3: Aetiology and Underlying Pathology

| Aetiology | Male | Female |
|-----------------------------------|------|--------|
| Renal Stone | 02 | 01 |
| Previous Ureteric Procedures | Nil | 01 |
| Tuberculosis | 03 | 01 |
| Obstructive megaureters | Nil | 03 |
| Malignancy Treatments (Radiation) | 02 | 07 |
| Previous H/O Surgery | 02 | 01 |
| Idiopathic | 02 | 05 |

Table 4: Investigations for the above said aetiology

| Aetiology | Investigations |
|-----------------------------------|----------------------------|
| Renal Stone | USG |
| Previous Ureteric Procedures | USG and Endoscopy |
| Tuberculosis | IVP, Urine Culture for AFB |
| Obstructive megaureters | Endoscopy |
| Malignancy Treatments (Radiation) | Endoscopy |
| Previous H/O Surgery | Endoscopy |
| Idiopathic | Nil |

Table 5: Treatment

| Aetiology | Treatment |
|-----------------------------------|--|
| Renal Stone | PCNL DJ Stenting |
| Previous Ureteric Procedures | Endoscopic Ureteric Balloon Dilatation and DJ Stenting |
| Tuberculosis | - Anti-Tubercular Drugs - Surgical Correction after the active infection was over |
| Obstructive megaureters | Ureteric Reimplantation |
| Malignancy Treatments (Radiation) | Stricture Segment Excision with Ureteric Reimplantation |
| Previous H/O Surgery | Endoscopic Ureteric Balloon dilatation and DJ Stenting |
| Idiopathic | Endoscopic Ureteric Balloon Dilatation and DJ Stenting |

Discussion

The lumen of the ureter becomes more constricted as a result of a stricture, which ultimately results in functional blockage. Endoscopies of the ureter and other diagnostic and therapeutic procedures have resulted in perforations, which are the most prevalent cause of strictures [1, 2]. According to the findings of a study [3], prior operations, particularly gynaecological procedures, radiation treatment for cancerous

tumours and prolapse are all known to produce strictures. Endometriosis is another condition that is known to induce strictures and has been described in a number of studies^[5]. Ureteric calculi are also known to cause strictures. In our nation, TB is a common problem, and it is one of the primary factors contributing to the aforementioned problem^[6]. Aortic aneurysms, particularly inflammatory ones, are known to elicit the same symptoms. This condition can also be caused by^[7]. Radiation treatment for pelvic cancers is one of the most difficult forms of cancers seen in urology practises and results in a very bad prognosis^[8]. Some writers have proposed that the strictures can be divided into two categories: the ischemic variety, also known as the necrotic variety, and the non-ischaemic variety^[9]. The vast majority of writers have similarly reached the conclusion that shorter strictures are associated with better outcomes following treatment^[10].

According to the results of our research, the average age of the population is 46.98 years. The majority of them were comprised of women. A significant part of the disease's aetiology can be attributed to radiation damage brought on by cancers. The percentage of patients who were successful following therapy was quite high.

Conclusion

The majority of research on the cause of cancer focuses on malignancies and the radiation therapy used to cure them. In order to have a better prognosis for the condition, prompt treatment and appropriate care are required.

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