Paper presented in 1-st International Scientific Conference
on Professional Sciences, "Alexander Moisiu" University, Durres
November 2016

THE PREVALENCE OF RENAL CALCULUS IN THE DISTRICT OF ELBASAN

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Abstract

This study aims to monitor the spread of renal calculus in the district of Elbasan taking into consideration: gender, age and residence. To gather data regarding the number of operations performed and the patients' duration of stay in the hospitals. It was performed a descriptive study in the district of Elbasan for the spread of the renal calculus in the district of Elbasan for a period of 4 years (2012-2015). There were gathered data according to gender, age, residence and the surgical intervention.
In this study was used a sample of 49 people, 22 men and 27 women. It was noticed that renal calculus affects more women (55.1%) than men (44.9%);The group age mostly affected was 25-34 years old, 10 patients (20,4%); 45-54 years old, 9 patients (18.3%); 55-64 years old, 8 patients (16.3%); >65 years old, 8 patients (16.3%); while the less affected group age were 15-24 years old, 7 patents (14.2%) and 35-44 years old, 7 patents (14.2%). Residents of rural areas were mostly affected, 31 patients (63.2%), while urban areas were affected only in 36.7% of the cases, 18 patients. Out of the 49 patients diagnosed with kidney stones, only 18 of them underwent to surgical intervention. The duration of stay in the hospitals was higher in 2013, an average of 49 days.

Keyword: Renal calculus, Elbasan, Prevalence

Introduction

The renal calculi otherwise is known as the "nefrolitiazis", they are small aggregates with mineral salts formed in the urinary tract. Kidney stones are one of the most painful urologic diseases, and have accompanied mankind for centuries. Their presence often is a result of different diets, but is also a genetic predisposition. Kidney stones are often asymptomatic and are discovered by chance during an X-ray control. Sometimes a strong acute pain signals their presence.

Kidney stones are consistent solid deposits formed by mineral salts found in the urine (calcium, oxalate, phosphate and uric acid). Mostly, they are favored by the high concentration of salt obtained through dietary or small intake of liquid.

Firstly are formed the crystals, than the micro-calculus and at the end the calculus. Due to their form and content, stones can move from their origin preventing urinary flow that causes intense pain and favors a urinary infection, and if it persists for a long period they increase the risk of kidney damage to progressive renal insufficiency.

The epidemiology and causes

Renal calculi is widespread in the population and affect about 3% of them. The most risked are men of the age 20-40 years, the incidence in this case exceed the 15%.
As the main risk factors are mentioned: dietary, dehydration, urinary pH less than 5, and the family history. The clinical cases usually occur during the hot summer period.

Clinic

To display pain the stone must narrow the urinary tract, the obstruction may be located within the kidney or easier to the ureters. Some patients have no symptoms or may show little concerns as: burning and increased urinary frequency. In some other patients, it appears as a colic form with intense and immediate pain localized in the groin.

Diagnostic methods

The diagnosis of kidney stones may be revealed by laboratory and instrumental examinations. Mostly are used the radiography and abdominal ultrasound. To confirm the diagnosis sometimes may be needed a more complex examination as urography.

Treatment

The treatment is done by drugs (antispastic and analgesic), when stones have a small diameter they can be eliminated spontaneously. Other used methods are extracorporeal and percutaneous litotricia, the ureterorenoscopy and surgical treatment.

Purpose

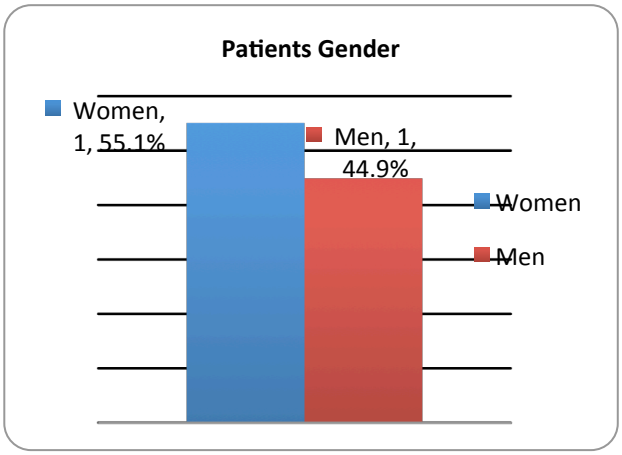
This study aims to monitor the spread of renal calculus in the district of Elbasan taking into consideration: gender, age and residence. The main purpose of this study is to gather data according to the number of operations performed and the patients' duration of stay in the hospitals.

Method

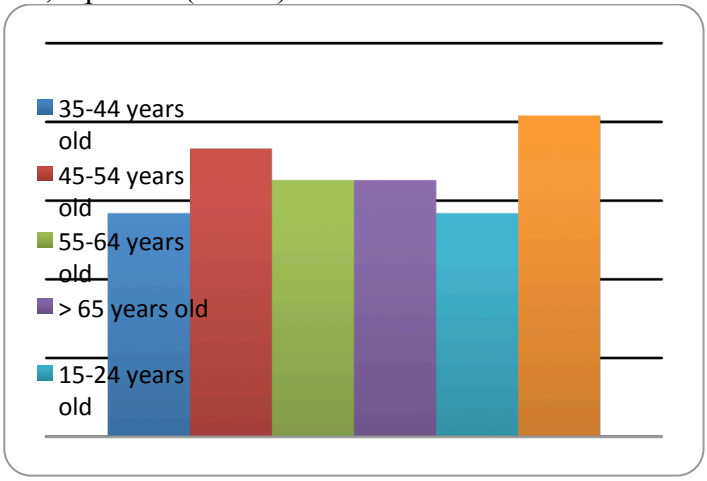
It was performed a descriptive study to evaluate the renal calculus spread in the district of Elbasan for a period of 4 years (2012-2015). There were gathered data according to gender, age, residence and the surgical intervention.

Results

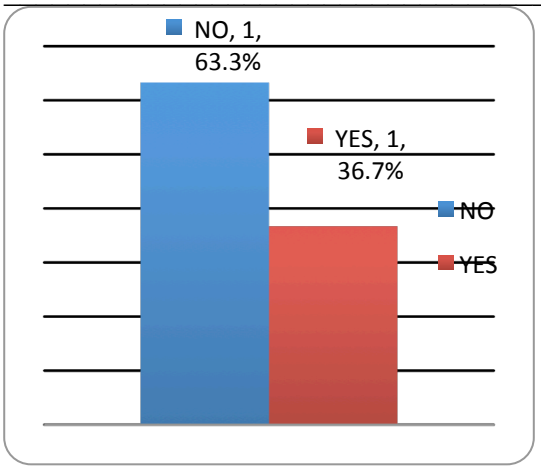
In this study was used a sample of 49 patients. It was noticed that renal calculi affects more women (55.1%) than men (44.9%);



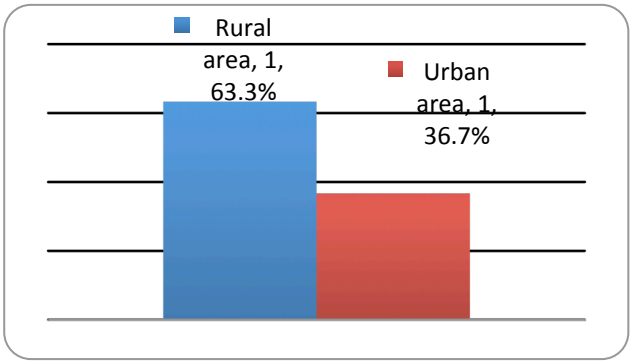
In relation to the age distribution associated with the presence of calculus it was observed that the group age mostly affected was 25-34 years old, 10 patients (20,4%); 45-54 years old, 9 patients (18.3%); 55-64 years old, 8 patients (16.3%); >65 years old, 8 patients (16.3%); while the less affected group age were 15-24 years old, 7 patents (14.2%) and 35-44 years old, 7 patents (14.2%).



According to the residence it was noticed that residents of rural areas were mostly affected, 31 patients (63.2%), while urban areas were affected only in 36.7% of the cases, 18 patients.



According to the treatment results it was observed that out of the 49 patients diagnosed with kidney stones, only 18 of them underwent to surgical intervention (36,7%);



Conclusions

Kidney stones make a significant percentage of urinary tract pathologies. In Elbasan district, through this study it was estimated that renal calculus were more prevalent among women, rural areas and also the most affected age group were them among 25-34 years old.

Urinary tract infection has an important role in creating the stones, so infection treatment plays also an important role in their prevention. Nowadays, the advanced technology has reduced the incidence of surgical intervention through treatments with mini-invasive procedures as: ureteroscopy, laser and percutaneous lithotripsy, by reducing the patients' duration of stay in the hospitals.

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