



CODEN [USA]: IAJ PBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.2596593>Available online at: <http://www.iajps.com>

Research Article

**A STUDY ON THE PREVALANCE OF SILENT KIDNEY
STONE**¹Dr Kifayat Tariq, ¹Dr Mehboob Ul Wahab, ²Dr Shafiullah, ¹Dr Riaz Ahmed¹Institute of Kidney Diseases Hayatabad Medical Complex Peshawar, ²Kidney Center Swat

Article Received: December 2018

Accepted: February 2019

Published: March 2019

Abstract:

Objective: Silent and not still detected stones of the upper urinary lining are conceivably unsafe, the presence of stone may cause infection in urinary tract, obstruction and renal damage. The aim of this research was to analyze the commonness of such silent kidney stones in a delegate Pakistani people of Peshawar.

Material and Methods: 201 patients were examined at our clinic multiple kidney screening and abdominal ultrasounds were conducted. Every one of these patients did not have a history or syndrome of urolithiasis.

Results: We identify the presence of kidney stones in three percent of patients. All patients were males. Mostly stones were identifying in left kidney. Prominently, different stones and stones of an impressive size went unnoticed.

Conclusion: Normally we used the patient information to identify the presence and frequency of stone disease, there is popularity of three percent silent stones that may only be detected frequently or by screening. This is valid for a "stone community" like Pakistan. Because of financial reasons, we trust that a general kidney screening for urolithiasis is, in any case, not showed, in any our country.

Keywords: kidney, Urinary, Gigantic, Renal Ultrasound, Abdominal Diagnostic,

Corresponding author:**Dr. Kifayat Tariq,**

Institute of Kidney Diseases Hayatabad Medical Complex Peshawar.

QR code



Please cite this article in press Kifayat Tariq et al., A Study On The Prevalance Of Silent Kidney Stone., Indo Am. J. P. Sci, 2019; 06(03).

INTRODUCTION:

Stone is one of the common diseases all over the world. Stone disease is a worldwide common problem with a gigantic financial impact. With respect to other countries, it is most common in our country (Pakistan) where stone participant shows the quantity of all urological patients. In our hospital, urological patients more than fifty percent of all are stone problem. Up to date, it is difficult to know how specifically stones form in the renal system and how quickly they may mature to a clinically important size [1]. Stones clinically quit for a long duration. However, when stone start growing in urinary tract, they may cause infection, obstruction, destroyed the kidney, and finally kidney not more work. Therefore, it was necessary to identify kidney in initial stages of their growth where they are not yet clinically symptomatic. A simple to utilize, innocuous and precise methods for such a screening would be a renal ultrasound. However, to determine the cost efficacy of such a screening, ultrasound screening was conducted to detect the frequency of silent stones.

MATERIAL AND METHODS:

About 201 mature participants of this research study

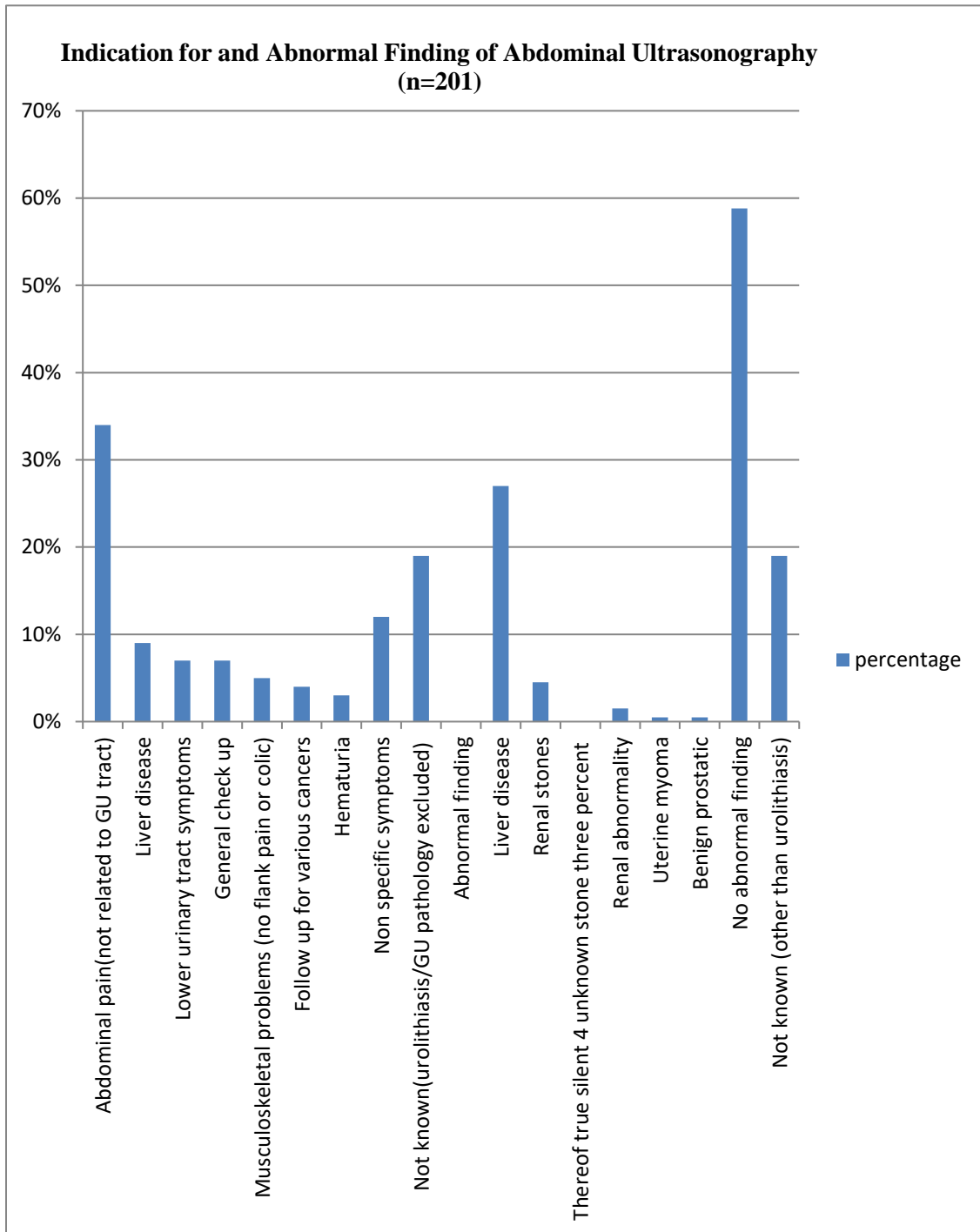
was examined through abdominal diagnostic ultrasound at the radiology department of the Institute of Kidney Diseases Hayatabad Medical Complex Peshawar from August 2017 to March 2018 had a multiple screening of the kidneys. Those patient who already suffered from kidney stone disease and pregnant patients were eliminated from research. All ultrasounds were conducted by single professional radiologist to eliminate inter-observer abnormality.

Age, sex, the sign for ultrasound, any neurotic finding, and, specifically, of urolithiasis, was noted. In patients in whom a stone was identified, urine study and X-ray diagnoses were compared with ultrasonographic finding of urolithiasis. Microsoft Excel spread sheet were used for data entry.

RESULTS:

Out of 201 patients 101 were males & 100 were females. 44 years (15-81) was the mean age for all patients, forty-five years (15-77) for males, and forty-two years (16-81) for women. All patients go through renal ultrasound screening by single professional ultra-sonographer. The abdominal ultrasound examination was conducted for different reasons. Suggestion and conclusion are noted in Table.

Indication for and Abnormal Finding of Abdominal Ultrasonography (n=201)	
Indication	Percentage
Abdominal pain(not related to GU tract)	34%
Liver disease	9%
Lower urinary tract symptoms	7%
General check up	7%
Musculoskeletal problems (no flank pain or colic)	5%
Follow up for various cancers	4%
Hematuria	3%
Non specific symptoms	12%
Not known(urolithiasis/GU pathology excluded)	19%
Abnormal finding	-
Liver disease	27%
Renal stones	4.5%
Thereof true silent 4 unknown stone three percent	-
Renal abnormality	1.5%
Uterine myoma	0.5%
Benign prostatic	0.5%
No abnormal finding	58.8%
Not known (other than urolithiasis)	19%
More than one finding per patient in one cases	



On before ultrasound evaluation, none of the participant expressed past kidney or urinary stone disease. However, stones were identifying in nine participants (4.4%). On further more inquiry, three patients remembered from a long duration having stone or history of stone disease. In this way, the real occurrence of clinically silent and however undetected kidney stones was three percent (n6) in our research community. Appealingly, presence of all stones was identifying in male patient approximately 6six percent of the male community studied. The average age of men stone was 48.4+17.6 years old (23-72 years). There were 1.4 stones per patients on mean.1-3 six patients had one, two patients had two & one patient had three stones. Mostly stones were detected in the left kidney (seven) with respect to the right kidney (two). Stones had an mean longitudinal diameter (LD) of seven.4 millimeter (one-25 millimeter), a transversal diameter (TD) of 4.4 millimeter (one-ten millimeter), and surface area of a stone ($SSA = LD \times TD$ in mm^2) $43.8mm^2$ (2-250 mm^2). One case was confirmed after when multiple X-rays were taken. Three patients had microhaematuria tested Out of four, for the presence of a stone further indication was needed. Consequently, extracorporeal shock waves (ESWL) treatment was conducted for one patient.

DISCUSSION:

The popularity of urinary stone disease is approximated at 2 to 3% [2]. It has a huge financial effect through treatment and recuperation related costs, lost from working time, & consequent morbidity [3]. This is specifically real for Pakistan; because in Pakistan whole families were depend on single person whose functionality may average an economic catastrophe. Stone disease represents in excess of 3rd of all urological affirmations at our university clinic. The high presence of stone disease was investigated in Pakistan that is way this country so called stone belt [4]. The climate of Karachi and around it is dry & hot. The neighboring countryside of Pakistan is also defined as desert area. Both factors may subsidize to local urolithogenesis. Moreover, alimentary consideration may play an extensive role with our community to use a lot of animal protein & associated lithogenic items [5]. Urinary tract stones have cause multiple abnormality and could lead to the loss of kidney, infection in urinary tract, renal damages and in the worst scenario. Kidney, yet, might be perfectly prevented if possibly significant stones could be identifying first to the start of symptoms and be recurred properly [6]. On the foundation of a general expanded risk of stone creation for our community, we endeavored to survey, that's way, the predominance of clinically

quiet but then unfamiliar stones so as to pass judgment on in the case of screening for renal stones would be confirm [7]. Such a screening would need to be finished utilizing a predictable, reproducible, practical, effectively accessible and simple to deal with techniques for examination that does not use ionizing radiation. That settles on ultrasound the technique for choice [8].

Out of 201 ultrasonographically screened participant, we identified9 stone bearers. On more addressing, three of them remembered a previous history of stone disease [9]. Be that as it may, there remains a genuine frequency of clinically unfamiliar stones of three percent. This is as per the, as far as anyone is concerned [10], just other examination which searched for unfamiliar kidney pathologies. Reisman et al9 analyzed 171 male prostatitis participant by abdominal ultrasound screening. 5 subjects (2.7%) had unfamiliar kidney stones [11].

It must be accentuated that these three percent silent stones are notwithstanding all the real stone participant on whose figures estimations of occurrence and predominance of urolithiasis are generally based. It isn't amazing that every single stone carrier were men [12]. This compares with the known distinction in rate that is multiple times as high in men as in women.3 The inquiry why the majority of the stones happened on the left side must be left unanswered. It is eminent that various stones and those of a significant size went unnoticed [13].

However, in a health framework where costs must be conceived straightforwardly by the patient in many occurrences, and patient reasonableness everywhere remains a key issue [14], screening for silent renal stones with a yield of three percent appears to be crucial to confirm and institute. Nonetheless, our discoveries complement the current epidemiological information on urolithiasis [15]. Relative information from different place of the world must be surveyed.

CONCLUSION:

Normally we used the patient information to identify the presence and frequency of stone disease, there is popularity of three percent silent stones that may only be detected frequently or by screening. This is valid for a "stone community" like Pakistan. Because of financial reasons, we trust that a general kidney screening for urolithiasis is, in any case, not showed, in any our country.

REFERENCES:

1. Reisman EM, Kennedy TJ, Roehrborn CG, et al. A prospective study of urologist- performed

- sonographic evaluation of the urinary tract in patients with prostatism. *J Urol* 1991; 145:1186-9.
2. Resnick MI, Prsky L. Summary of the National Institutes of Arthritis, Diabetes, Digestive and Kidney Diseases Conference on Urolithiasis: state of the art and future research needs. *J Urol* 1995; 153:4-9.
 3. Ablett MJ, Coulthard A, Lee RE, et al. How reliable are ultrasound measurements of renal length in adults? *Br J Radiol* 1995;68: 1087-9.
 4. White RW. Minerals in the urines of stone formers and their spouses. In: Hodgkinson A, Nordin BEC (eds.). *Proceedings of the renal Stone research symposium*. London: Churchill Ltd., 1969.
 5. Buchholz NP, Grover PK, Rutishauser G. Modern surgical treatment and basic research in urolithiasis: exclusive or complimentary? An overview. *Arch Urol* 1996; 18:1-13.
 6. Talati J, Khan F, Drago H, et al. Epidemiology of urolithiasis in Pakistan. in: Talati J, et al (eds.). *The management of lithiasis*. London: Kluwer Academic Publ 1997, pp. 21-33. 3. Menon M, Parulkar BG, Drach GW. Urinary lithiasis: etiology, diagnosis and medical management. In: Walsh PC, Retik AB, Vaughan Jr. ED, et al. (eds.). *Campbell's Urology*, 7th ed. Philadelphia: Saunders, 1998, pp. 2659-2734.
 7. Uribarri J, Man S, Carroll JFI. The first kidney stone. *Ann Intern Med* 1989; 111:1006-9.
 8. Finlayson B. Renal lithiasis in review. *Urol Clin North Am* 1974; 1:181-212.
 9. Selberherr, A., Hörmann, M., Prager, G., Riss, P., Scheuba, C., & Niederle, B. (2017). "Silent" kidney stones in "asymptomatic" primary hyperparathyroidism—a comparison of multidetector computed tomography and ultrasound. *Langenbeck's archives of surgery*, 402(2), 289-293.
 10. Kuwabara, M., Niwa, K., Ohtahara, A., Hamada, T., Miyazaki, S., Mizuta, E., ... & Hisatome, I. (2017). Prevalence and complications of hypouricemia in a general population: A large-scale cross-sectional study in Japan. *PloS one*, 12(4), e0176055.
 11. Fagagnini, S., Heinrich, H., Rossel, J. B., Biedermann, L., Frei, P., Zeitz, J., ... & Rogler, G. (2017). Risk factors for gallstones and kidney stones in a cohort of patients with inflammatory bowel diseases. *PloS one*, 12(10), e0185193.
 12. Luyckx, V. A., Tuttle, K. R., Garcia-Garcia, G., Gharbi, M. B., Heerspink, H. J., Johnson, D. W., ... & Sola, L. (2017). Reducing major risk factors for chronic kidney disease. *Kidney international supplements*, 7(2), 71-87.
 13. Dharmarajan, S. H., Bragg-Gresham, J. L., Morgenstern, H., Gillespie, B. W., Li, Y., Powe, N. R., ... & Saydah, S. H. (2017). State-level awareness of chronic kidney disease in the US. *American journal of preventive medicine*, 53(3), 300-307.
 14. Canvasser, N. E., Alken, P., Lipkin, M., Nakada, S. Y., Sodha, H. S., Tepeler, A., & Lotan, Y. (2017). The economics of stone disease. *World journal of urology*, 35(9), 1321-1329.
 15. Hernandez, N., Mozafarpour, S., Song, Y., & Eisner, B. H. (2018). Cessation of ureteral colic does not necessarily mean that a ureteral stone has been expelled. *The Journal of urology*, 199(4), 1011-1014.