Observation Study of the Treatment of Pain Concerning Kidney Stones

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Abstract
The human kidney is one of the most delicate organs in the stomach. Yet the kidney stones which usually occur as crystal concrete in this organ make it even more troublesome. The disease is a urological disorder that cripples human health of many Africans and it is also noted to be affecting 12% of the human population in the world. Typical with this disorder is the increase risk of end-stage renal failure. The most common type of kidney stone is calcium oxalate which is developed at Randall’s plaque on the renal papillary surfaces. This can cause excruciating pain, vomiting, restlessness and sleeplessness and near death experiences to older patients. As there are no tangible treatment and no satisfactory drugs to aid patients deal with their pains, there are often recurrences. Patients then consult doctors for the purpose of surgical operation to remove them, but these can lead to many complications, especially where patients are suffering from diabetes, hypertensions and other serious illnesses. While doctors try to comprehend the pathophysiology of the stones formation, it has become a research discipline to manage urolithiasis using new drugs. The aim of this research was to observe and clinically interview those patients who consult traditional specialist practitioners in the Eastern Region of Ghana in order to obtain herbal treatment. We hypothesized that treatment with traditional practitioners about pain management will be effective with the use of increased social support and eventual reduction of the fear of death. The study therefore adds up about etiology, pathogenesis and other important prevention approaches which are also reported in different research.

Keywords: Kidney stones, Acute Pain, Back Pain, Vomiting, Restlessness, Opioids, Surgical operations, Traditional Specialist Practitioners, X-Medicines, D-Medicines.

Background and Overview of Kidney Stones
Kidney stone is not uncommonly found in the organ which isin the stomach¹. As a special illness which is usually fixed in the urinary tract, history has it that human beings have been afflicted by it since time immemorial originating as far back to B.C. 4000². Since there are no essential drugs known at the moment to be able to treat this disorder effectively, the stones recurrence and its prevention still remains a serious obstacle in human health³. Doctors have spent considerable number of hours
comprehending how these stones are formed\(^4\). Kidney stone illness (KSI) has been found to be associated with chronic kidney diseases\(^5\), end-stage renal failure\(^6\), cardiovascular diseases\(^7\), diabetes, and hypertension\(^8\). Kidney stone is seen as a systematic illness which is tied to the metabolic syndrome. Nephrolithiasis causes 2% to 3% of end-stage renal failure cases if found to be associated with nephrocalcinosis\(^9\).

Kidney Stoneillness (KSI) is a serious illness which causes excruciating pain to patients both young and old in Ghana. While the majority of patients use excessive opioids and furthermore seek surgical operation in big hospitals in Ghana in order to remove them, there are others who solicit treatment from specialist traditional practitioners in urban centers because they believe these practitioners have proper medicines for the treatment of this particular disease rather than the use of only opioids in a constant manner to relieve the pain. The effectiveness of the treatment of this pain and the eventual melting of the stones in the kidney by the latter practitioners' medicines are reported in the local communities, but have not received objective research investigation.

**Aims and Significance of the Study**

The aim of the investigation is to observe the treatment of kidney stone illness (KSI) without surgery removal and to follow the patients with clinical interviews concerning their conditions after the treatments have taken place. The Kidney Stones illness (KSI) investigation took place in one of the urban areas of the Eastern Region of Ghana.

The investigation is significant as it will unveil the progress being made in the context of Africa concerning the local treatment of a urological disorder which there are no satisfactory drugs to cure or prevent its recurrences.

**Hypothesis**

Patients’ consultation with doctors in the mainstream hospitals in Ghana for the purpose of surgical operation to remove their kidney stones is common. But these operation, according to some information surrounding some cases, can lead to many complications especially where patients are suffering from diabetes, hypertensions and other serious illnesses. While mainstream doctors try to comprehend the pathophysiology of the stones formation in order to apply effective new drugs, practitioners in the traditional societies already have effective ways of causing the stones to melt or disappear. We hypothesized in this investigation that treatment with traditional practitioners about effective pain management will be concurrently used with salient increase in social support and eventual reduction of the fear of death.

**Review of Literature Concerning Epidemiology of Kidney Stones (EKS)**

According to research conducted by T. Knoll in 2010, "Epidemiology, pathogenesis and pathophysiology of urolithiasis", published in *European Urology Supplements*, kidney stones disease prevalence and recurrence rates are increasing with limited options of effective drugs\(^10\). Urolithiasis affect around 12% of the world population at some stage in their life time\(^11\). The disease affects people of all ages which includes different sexes and races\(^12\). But more often it is men rather than women between the ages 20-49 years that suffer the most\(^13\). If sufferers do not utilize metaphylaxis, the relapsing rate of secondary stone formation is estimated to be 10 to 23% per year, 50% in 5-10 years and 75% in 20 years of patients\(^14\). Although the incidence of nephrolithiasis is increasing among women, lifetime recurrence rate is much higher in men\(^15\).

In recent investigations, it has been asserted that prevalence of urolithiasis has been growing in the past decades in both the context of Africa and many developed countries in the world. It is explained that this increasing trend could probably be due to changes in lifestyles modifications such as lack of dietary habits and physical activity\(^16\) as well as global warming\(^17\). In Africa and more
especially in India, it is estimated that 12% of their inhabitants are predicted to have urinary stones and out of which 50% may end up with loss of kidney functions[18].

Method and Material
The observation of the treatment occurred in a well-known center in Begoro which is in the Eastern Region, where people live in different communities where they practice farming and shifting cultivation. Here, patients who feel uncomfortable with the alternative surgery removal of the kidney stones in the main stream hospitals often come with enormous confidence to receive treatment from traditional specialist practitioners. Those medicines, which can be termed X-medicines for the kidney stone treatment and the D-medicines for the enrichment of blood content in the body, are given to these patients in order to cause the kidney stones to melt/dissolve. Patients take into their stomachs some liquid medicines which are made from special 1) roots of trees, 2) leaves and herbs and 3) tree barks. Other ingredients such as pepper, ginger, when tea, and water are added to these prime medicines in order to use them for the treatment. They are grinded with stones and other palming instruments then sifted to remove impurities and later kept in small rubber containers to keep them cool and preserved. Continuous drinking of these liquid medicines not only melts the kidney stones gradually, but also relieve the patients from their excruciating pain, vomiting, restlessness, sleeplessness and near death experiences which they used to experience prior to the treatment. In all, the 12 patients rated their pain intensity level (NRS, 0-10) which used to be as high as 10 point scale level to a reduction point level of 0. They also believed that the kidney stones had disappeared as they did not feel their presence in their stomach/kidney. That is, they had melted down in their kidney just as the practitioner predicted during the commencement of the treatment. However, there were some side effects of the medicines, which were reported to be waist pain, tiredness in sitting down for long, excessive eating/over eating and being quick to anger. Patients’ inability to walk around for a long period and the continuous lying down in bed for these old age patients prior to the treatment have also reduced drastically. Patients see the enormous usefulness of not engaging in any surgery for the meantime for the purpose of the removal of the kidney stones in the hospitals. While some patients after successful removal of their kidney stones could not gain their strength back to old age and other complicated diseases such as diabetes, lack of appetite, and BP (High Blood Pressure), the patients who were observed saw the efficacy of employing the traditional means of drinking liquid medicines as far better than the surgery performed in the specialist hospitals.

Discussion and Conclusion
Kidney Stone illness (KSI) often makes patients become helpless amidst excruciating back pain, vomiting, restlessness and sleeplessness, and near
death experiences which patients do not have enough words to describe. As a result, many patients undergo surgical operation in order to remove them in the mainstream hospitals in Ghana. While surgical operation may be successful, there are still reports by patients of inheriting serious weaknesses of the body such that they may be unable to engage in any serious work for life after the operations. The traditional means of treatment of pain by specialist practitioners have been observed to be effective by the 12 patients who received their treatments. There is absolute abatement of the excruciating back pain, vomiting, restlessness, sleeplessness and near death experiences associated with the illness prior to the treatment without surgery. If we depend solely on the success of the treatment of the kidney stones without surgery for these twelve patients, then it could be asserted that the traditional treatment and management of the pain associated with the disease is as effective as the operations which are usually carried out by biomedically-trained surgeons in specialist government hospitals in Ghana.

Evaluation of X-medicines which is used to treat the kidney stones and the D-medicines which is utilized in order to enrich the blood content in the body of the patient is important. What can these medicines accomplish which make them equally essential as therapeutic drugs employed by the biomedical specialists? Can the biomedical doctors in the Ghanaian primary healthcare sector learn something from these traditional liquid medicines which are often used to treat these patients? To some extent these traditional drugs have nutritional management implications. These medicines are of the content such as to make the patient increase his/her water intake and thereby increase his/her urine output to a high level that is also recommended by the preventive medicines advocated by mainstream doctors. Urine output of at least two liters per day is recommended by most of these traditional specialist doctors as well. It is also acknowledged that enough fluid consumption reduces urinary saturation and dilutes promoters of CaOx crystallization. Notwithstanding, patients are also admonished by these practitioners to refrain from eating fatty foods as well as eating meat that has high fat content. Animal protein which is restricted is also intelligible since it encourages an increased acid load because of its high content of sulfur-containing amino acids. Thus protein in high quantity minimizes urine pH and the level of citrate, and increases urinary calcium excretion through bone reabsorption. Dietary habit that includes the taking of more fruits and vegetables are also encouraged by practitioners.

Despite their non-sophisticated training and lack of adequate good knowledge concerning modern medicine, the traditional specialist practitioners in Ghana are performing wonderfully well concerning the treatment of kidney stones. Their manner of encouraging patients to continuously consume their liquid medicines which have both therapeutic and preventive measures are intelligible as the illness is known for its high recurring rate. In addition to studying their novel manner of treating this illness, we also encourage experts of modern medicine to investigate the curing contents of these medicines in order to learn something about their strategic pain management which lead to effective efficacy.

Limitation of the Study

While the study's results cannot be generalized as occurring in the whole country with many patients who suffered from kidney stones, the clinical interviews and the observation methods employed with the limited patients have informed us about the existence of effective treatment of an illness which affects a sizable number of people in Ghana and the world. The practitioner is said to be an expert who is capable of treating kidney stones illness and other illness that are often found to be not easily treated by biomedical specialist without the use of surgical operation. Future study with several practitioners and many patients in connection with how kidney stones can be melted without surgical removal operation, will be
worthwhile and could elucidate efficacy in a wider context.

**Implications of the Study**

It is essential for the health authorities in Ghana to further educate these traditional practitioners who are contributing greatly to pain and health management in the urban areas in the country. Basic theoretical skills concerning how to treat and manage pain properly should be given to these traditional experts who already possess the practical skills. Plans are also underway to implore the practitioners to allow the Western trained specialist practitioners to have access to these liquid X and D medicines which could be developed to perform official treatment in the hospitals in Ghana and the world as a whole.

**Conflicts of Interest**

The authors declare that they have no conflict of interest.

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