

LORD, THAT I MAY URINATE

AN INAUGURAL LECTURE,
2014/2015

LINUS IKECHUKWU OKEKE

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LORD, THAT I MAY URINATE

*An inaugural lecture delivered
at the University of Ibadan*

on Thursday, 10 September, 2015

By

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The Vice-Chancellor, Deputy Vice-Chancellor (Administration), Deputy Vice-Chancellor (Academic), The Registrar and other Principal Officers, Provost of the College of Medicine, Dean of the Faculty of Clinical Sciences, Deans of other Faculties and Postgraduate School, Dean of Students, Distinguished Ladies and Gentlemen.

It is with humility and gratitude to the Almighty God that I stand before you today to deliver this inaugural lecture on behalf of the Faculty of Clinical Sciences, College of Medicine of this great University. It will be the 10th in the inaugural lecture series for the 2014/2015 session. I am indeed grateful to the University, acting through my Dean, the Venerable, Professor Ade Malomo and his executive committee, for nominating me.

The first inaugural lecture from the Department of Surgery, titled "The Fire of Life" was delivered in 1975 by Professor E.O. Olurin, now of blessed memory. The second, titled "Practice and Practitioners of Medicine" in 1983 was delivered by Emeritus Professor A. Adeloje. The third, "Brain Surgery: Myth or Reality" in 1987 was delivered by the late Professor A.A. Olumide. "Snooping about inside the Belly" was the 4th, delivered by Professor O.G. Ajao in 1992.

More recently, "The Road to Success is always under Construction", the 5th in the series, was delivered by Professor O.M. Oluwatosin in 2007 while the 6th, titled "Neurosurgery: Tinkering with Structures of the Mind" was delivered in 2012 by Professor Ade Malomo.

This will therefore be the 7th inaugural lecture to be delivered from the Department of Surgery and the very first to be delivered by the Urology sub-specialty.

I must at this point acknowledge the immense contributions of the great founding fathers of the Urology sub-specialty in the College of Medicine, University of Ibadan, in the persons of Professor Edet Nkposong and Professor Johnson Lawani both of whom are now retired but far from tired. I also wish to acknowledge the contributions of my current Head of Department, Professor Layi Shittu and my other fellow Plumbers (a colloquial name for Urologists)

in the Urology division, namely, Professor Oluwabunmi Olapade Olaopa, Dr. Augustine Takure and Dr. Sikiru Adebayo.

My selection for today's event, therefore, cannot but remind one of Samuel, 1: 16 about the selection of David as king. After six of the sons of Jesse had been presented, the prophet Samuel asked, "Are these all the sons that you have?" and Jesse replied: "There is still the youngest. He is tending the sheep". Incidentally, I too, like David, am undoubtedly the smallest of them all, and was also the shepherd of a large flock of my grandmother's sheep from 1967 to 1970 at Nnewi, during the Nigerian civil war when I lived with her.

What is Urology (pronounced You-Rology)

Urology, a Greek word meaning the study of urine, is also known as genitourinary surgery. It is the branch of medicine that focuses on the surgical and medical diseases of the male and female urinary tract and also the male reproductive organs.

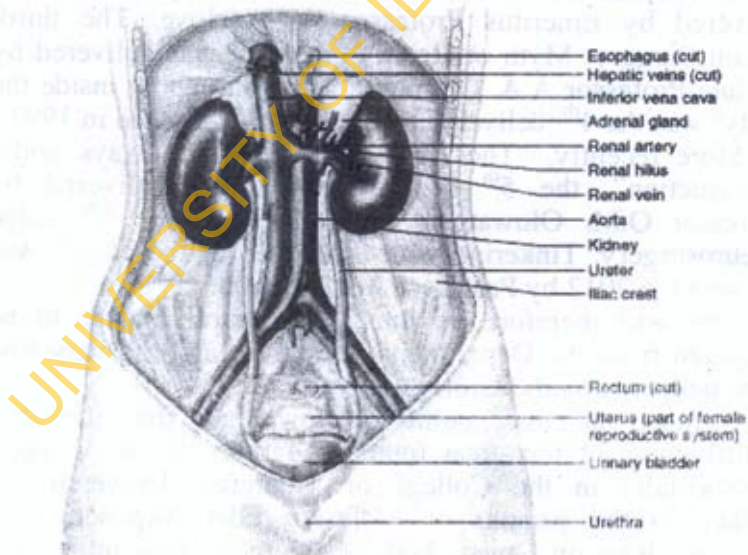


Fig. 1: Organs of the urinary tract (Adapted from Pearson Education, Inc., publishing as Benjamin Cummings).

Who is a Urologist (Pronounced You-Rologist)

A urologist is a physician who specializes in the treatment of diseases of the urinary tract of both males and females and also in the treatment of diseases of the reproductive system in males. This includes the diseases affecting the kidneys, adrenal glands, ureters, urinary bladder, and urethra in both sexes, along with the testes, epididymis, vas deferens, seminal vesicles, prostate gland and the penis in males.

In the Beginning

Mr. Vice-Chancellor sir, I started off with the University of Ibadan in 1990 as Lecturer 1 and subsequently rose to the rank of Professor in 2006. I joined at a period when austerity measures introduced to salvage the country's ailing economy was biting hard and the brain drain syndrome had started. This is reflected in my early attempts at research and publication, studies aimed at improvisation and survival. The first ones were, "The Economic Skin Hook for Developing Countries", (Okeke, Dogo, Ladipo & Ajao 1991) "The Economic Scabbard for use in Developing Countries" (Okeke & Lawani 1991), and "An Orchidometer for Developing Countries" (Adebamowo, Okeke, Ladipo & Ajao 1992) all aimed at keeping the practice of medicine going despite the economic downturn which had affected the ability of the hospitals to provide standard items needed for the safe practice of surgery.

What was happening to medicine at that time was also happening to other sectors of life. People designed/fabricated machines such as the pepper grinding machines, which lacked safety features and in addition to grinding tomatoes and pepper were also grinding the hands of our adventurous young boys who were often sent by their parents to the pepper grinder, leaving them with very devastating injuries. Because of the brain drain at the time, I was detailed by the then Head of Surgery, Professor O.G. Ajao to supervise the plastic surgery unit which had no consultant plastic surgeon.

In our study of these hand injuries published in 1992, (Okeke, Dogo, Ladipo & Ajao 1992), titled "Grinding Machine Injury of the Hand, a Preliminary Report", we noted that even though the viability of the crushed skin on the dorsum of the hand may appear questionable at initial presentation of the patients, most of this skin will survive and we advocated that as much of this skin as is possible should be spared. We recommended that inclusion of a protective casing for the drive belt of the grinding machine and separation of the receptacle from the grinding section by a long narrow channel which would not allow entry of a child's hands, might improve the safety of these machines.

We also examined crush injuries of the hand in general and in our paper titled, "Crush Injuries of the Hand", published the following year (Okeke, Dogo, Ladipo & Ajao 1993), we acknowledged our sub-optimal outcomes and recommended that we should abandon our extreme conservative stance and be more aggressive in our attitude to these injuries.

With the return of Professor O.M. Oluwatosin to retrieve and rescue the plastic surgical unit from me in 1992, I had no choice but to fully face my urology but I must admit that some plastic and reconstructive surgical techniques I picked up have been of immense benefit to my patients in urology especially when performing urethral stricture surgeries and penile reconstructive procedures. The saying, "No knowledge is lost", cannot be more true.

Back to Urology

In the holy gospel of St. Luke 18:41, as our Lord Jesus Christ was approaching the city of Jericho, a blind beggar by the road side called out to him, "Jesus, son of David, have mercy on me". As the disciples tried to quieten him, he shouted even the more. Jesus stopped, ordered the blind man brought to him and asked, "What would you want me to do for you?". The blind man replied: "Lord, that I may see".

That brings us nearer to the title of today's inaugural lecture: "Lord, That I May Urinate". Usually, passing urine is taken for granted but there are several conditions in urology that may make a patient unable to pass urine. These include phimosis, paraphimosis, urethral calculus disease, urethral strictures, bladder outlet obstruction from bladder neck stenosis, benign prostatic hyperplasia, carcinoma of the prostate and detrusor sphincter dyssynergia. Of these, we shall dwell a little more on benign prostatic enlargement (BPH).

Where is the Prostate Gland Located in the Body?

The prostate gland is only present in the male. It is located deep in the pelvis. It lies below the urinary bladder and is above the membranous urethra below, behind the pubic symphysis and in front of the rectum.

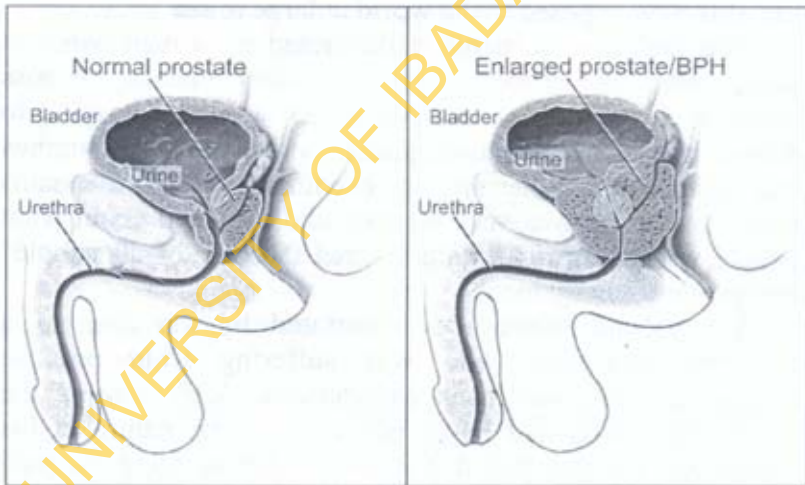


Fig. 2: Location of the prostate gland.

What Causes Benign Prostatic Enlargement (BPH)?

Benign prostatic enlargement (BPH) occurs in the aging male. It is purely caused by aging (Tanagho & McAninch 2004). As we grow older, there is an imbalance between the

blood levels of androgens and estrogens and this imbalance is thought to be responsible for this enlargement. The prevalence is put at 2 out of 10 in men aged less than 50 years and rises to 9 out of 10 in patients aged over 80 years. However, the enlargement affects different individuals to varying degrees.

What does the Society at Large think about the Cause of Enlargement of the Prostate Gland?

Mr. Vice-Chancellor sir, unpublished data shows that the society at large believes that prostate enlargement is due to too much sexual intercourse especially with multiple sexual partners. The patients themselves are often very puzzled that "they of all people" should be suffering from prostate enlargement. Their wives, on the other hand are disappointed and ashamed that "what their husband had been doing in secret is now exposed to the world at large to see".

The first case scenario is illustrated by a man, who on going into acute urinary retention (sudden inability to pass urine) and having been catheterized in a nearby hospital to relieve him of the retention, packed a few of his belongings and disappeared. When he was eventually located 2 months later, he said he was very worried and ashamed about what people would say if they discovered that he "of all people" had prostate enlargement.

The second scenario is illustrated by the case of a reverend gentleman who was suffering from prostate enlargement and had been catheterized. After visiting the clinic and asking and being educated on the nature of his illness and the fact that it was purely due to aging, he paid another clinic visit the very next day, this time in the company of his wife. At this second visit, he repeated the same questions we had discussed the previous day and while I was still explaining as I had done the previous day, his wife broke down in tears, went on her knees and pleaded that I should help her beg her husband. When the illness started and he was unable to urinate, she had said to him: "You too,

bishop!" She had thought, like most people in the society did, that her "bishop" husband had been having extra marital affairs.

Prostate Enlargement as a Family Ailment

Mr. Vice-Chancellor sir, even though prostate enlargement occurs physically in the aging male, once it becomes symptomatic, the whole family is actually involved. A woman cannot possibly have a sound sleep at night if her husband wakes up every 30 minutes to urinate. Even his staff are not spared. The driver may have to shuttle him to hospital late at night if he goes into urinary retention and may wonder why his boss has to stop several times on the way to urinate. When he eventually gets admitted for treatment, the whole family is involved. One person or the other may be required to donate blood or purchase one item or the other. In the unfortunate event that the patient dies from going for treatment at the wrong hospital, the capital expenses of his funeral and the grief from his loss and sometimes the pandemonium and law suits to contest his will that ensues in polygamous or dysfunctional family settings will all be on the family he has left behind. The extended family and friends are not spared either.

Can We Prevent Prostate Gland Enlargement?

Mr. Vice-Chancellor sir, yes we can prevent the prostate gland from enlarging. For now, there are two ways this can be achieved.

1. If a boy is castrated before puberty as is said to be practised in some kingdoms.
2. If a boy dies before reaching adulthood.

As you may have already figured out sir, these available methods for preventing prostate enlargement are not particularly palatable. We all usually pray for long life and prosperity and with long life comes grey hairs and prostate enlargement. This is completely natural.

Anti-aging research may provide us with better answers but we shall have to await their outcomes.

How does a Patient with Prostate Enlargement Present?

Group A: No symptoms

Half of the men with benign prostatic enlargement do not have any symptoms. They are discovered by chance during routine medical examination for routine checkups or during assessment for insurance purposes. Such individuals get referred to the Urologist. On questioning, it will be discovered that they do not have any complaints about their urine. Such individuals do not need any treatment and are best left alone with their enlarged prostate glands. They may never need any treatment for this all their lives.

Group B: With symptoms

The remaining half of the patients with benign prostatic enlargement will present with symptoms. These symptoms usually arise due to the compression of the prostatic urethra by the enlarged prostate gland or the secondary response of the urinary bladder to the obstruction. The symptoms caused by the compression of the urethra are referred to as obstructive symptoms. These include hesitancy (delay in initiating urination), poor urinary stream, feeling of incomplete voiding, double voiding and post micturition dribbling of urine (table 1).

Some patients, in addition, also present with secondary urinary bladder response and these are referred to as irritative symptoms. They include urgency (the patient must hurry to go and urinate otherwise the urine may escape by itself), urinary frequency, urge incontinence and nocturia (table 2).

TABLE 1**Voiding symptoms**

- Hesitancy
- Poor flow
- Intermittent stream
- Dribbling
- Sensation of poor bladder emptying
- Episodes of near retention

Acute retention

- Inability to pass urine
- Supra-pubic, constant, dull aching pain

Chronic retention

- Overflow incontinence, hernia, hemorrhoids

Features of uremia

- Headache
- Fits, drowsiness

TABLE 2**Storage symptoms**

- Frequency
- Nocturia
- Urge incontinence
- Nocturnal incontinence
- Urgency

When interviewing these patients, we also ask questions to identify and exclude other possible causes of these symptoms such as urinary tract infection, neurogenic bladder, urethral stricture disease or prostate cancer.

The patient's symptoms are then scored, using the International Prostate Symptom Score (IPSS) sheet. Scores of less than 8 indicate mild symptoms, between 8 and 19 is considered moderate while 20 to 35 is severe. The 'bothersomeness' of the symptoms to the patient is also scored (see appendix).

We then do a complete physical examination of the patient including a digital rectal examination to evaluate the prostate gland with a gloved finger inserted into the anal canal and rectum.

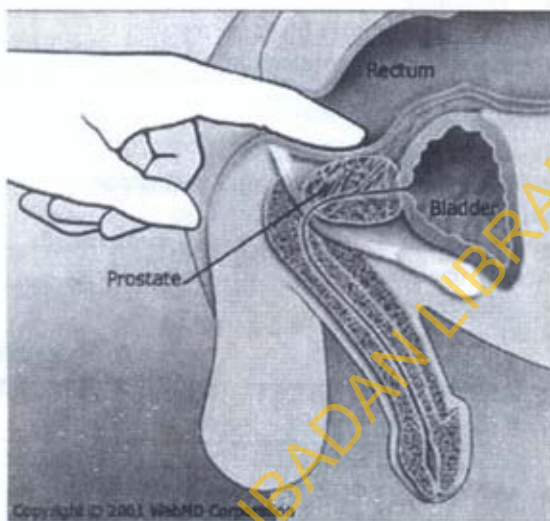


Fig. 3: Digital rectal exam.

A benign prostate gland feels firm, smooth, elastic, with no areas of induration or obliteration of the median groove or lateral sulci. Assessment of the prostate size during this examination is only an approximation since the real size is better measured by transrectal or transabdominal ultrasound scans. During the scan, the post voidal urine volume (the amount of urine remaining in the bladder after the patient has finished urinating) is also measured. Any anomaly detected during the digital rectal examination may suggest the possibility of carcinoma of the prostate gland and may mean that a prostate biopsy will be needed to confirm this.

Acute Urinary Retention

Sometimes, the patient presents with complete inability to pass urine and this is very distressing. This situation is better imagined than experienced.

So Mr. Vice-Chancellor sir, let us imagine for a moment, that you had just had 2 to 3 bottles of a drink and subsequently boarded the usual luxury bus without toilet facilities for a long journey. Sooner or later, you feel the urge to urinate but the driver tells you that the area is not safe and wouldn't stop for you to urinate. Imagine he goes on for another 2 hours and eventually stops for you to ease yourself. Now imagine you quickly rush out to the little bush by the roadside only to discover that the urine wouldn't come out, no matter how hard you tried!

So is the experience we call acute urinary retention. The patient is so uncomfortable and in pains that he usually feels the end has come. In fact, we once had a patient, a polygamist, who on developing acute urinary retention, quickly summoned his family to an emergency meeting and read his own will, distributing all his assets, before being taken to the hospital!

Sometimes acute urinary retention strikes when a man whose prostate is enlarged has had to hold his urine for a long time especially when attending an important function like his own child's wedding, a long church service like during annual church harvest or a long board meeting or council meeting. While he is holding the urine, the bladder neck becomes edematous and leads to complete blockage of what is left of the bladder outflow channel. The result is that after the wedding or whatever function that made him to hold his urine for too long, he is unable to urinate and ends up in hospital. Quite often, this experience is attributed to the work of the enemy, a spiritual attack!

For the group of patients who have BPH presenting with inability to urinate, the urinary retention is first relieved by urethral catheterization. While on catheter, they are placed on medications which are usually used for medical treatment of BPH. They may subsequently be able to resume normal voiding when their catheter is removed about a month later. Those who are unable to resume normal voiding are placed back on catheter which is changed every 4 weeks and surgery planned for.

Occasionally, we encounter patients who are so scared of surgery that they prefer to remain on catheter drainage but this is not without its possible complications some of which can be life threatening (Adebamowo & Okeke 1993; Omotosho, Maduagwu & Okeke 2000).

We carried out a survey to determine the self-reported quality of life measures of our patients with BPH who were on indwelling urethral catheters and discovered that even though one would have expected this group of patients on long term indwelling catheters to report a poor quality of life, we were surprised to discover that 80% of them did not think their quality of life was impaired by the prolonged catheterization. It is actually not conceivable for one to engage in sexual intercourse with a urethral catheter in situ but one of our patients actually did on a regular basis and thought it was a special experience he will miss after he has had his operation (Okeke & Aisuodionoe-Shadrach 2006).

Investigations in Patients with BPH

Thereafter, some basic tests are usually ordered for, which include a full blood count, urinalysis, urine M/C/S, blood urea and electrolytes and creatinine, abdominal/transrectal ultrasonography and prostate specific antigen (PSA). Additional investigations may include cystoscopy, cystometrogram and urodynamic studies, depending on the peculiarities of the case.

Intravenous Urography (IVU) in Patients with PBH

Before 1990, intravenous urography (IVU) was a routine part of assessment of all patients with features of BPH in many centers, including the University College Hospital (UCH) Ibadan. However, following the death of a patient after IVU, we carried out a 10 year review of 254 patients who had had routine intravenous urography as part of their investigations for BPH, and discovered that the findings on IVU did not in any way affect the ultimate choice or course of treatment in our patients with BPH (Dogo & Okeke 2000). We thus joined many other researchers the world over in recommending the

discontinuation of routine use of IVU for patients with BPH. It is now reserved for selected cases presenting with hematuria in which other causes of the hematuria cannot be excluded with other investigative modalities. The worldwide practice now is to use plain abdominal x-ray combined with abdominal ultrasonography instead of IVU (Dogo & Okeke 2000).

Prostate Specific Antigen (PSA) in BPH

PSA is a substance produced by normal cells of the prostate gland. However, when cancer develops in the prostate gland, it produces more PSA than normal. The normal level is 0-4ng/ml but may rise much higher in the presence of BPH, prostate cancer, prostate infection or inflammation. It may thus be difficult to understand the cause of a high PSA in some patients. Under such conditions, we may resort to the use of PSA density, % free PSA, age adjusted PSA, or PSA velocity to make sense of the cause of the elevation.

When the PSA is elevated, our major concern becomes the possibility that we may be dealing with cancer of the prostate and shall have to take measures to confirm or exclude prostate cancer. The gold standard for the diagnosis of cancer is to see the cancer cells on a slide of the histologic specimen. Obtaining such a specimen in this case involves taking a biopsy of the prostate through the anus/rectum. This process which is called transrectal biopsy of the prostate is not without dangers as it may be accompanied by morbidities like severe rectal bleeding, passage of blood in the urine, urinary tract infection and septicemia. Patients have been known to die following this test.

To reduce the number of our patients subjected to prostate biopsy and therefore reduce the number of patients exposed to the possibility of developing these complications or dying from the procedure, we treat our patients who have abnormally high PSA levels in whom the digital rectal examination findings are normal, with a combination of a quinolone (an antibiotic), methronidazole and a non-steroidal anti inflammatory agent for a period of 3 weeks. If a repeat

PSA shows a significant reduction, it will be safe to assume that infection/inflammation was the cause of the elevation and not prostate cancer. Such patients are therefore spared from prostate biopsy and the inherent risk of associated morbidity or mortality.

Treatment of Prostatic Enlargement (BPH)

Following this exhaustive assessment, the patient is informed/educated on the nature of his illness and the different options available for the management.

In those with an IPSS score of 0—7, i.e., those with mild symptoms, life style modifications and watchful waiting may be all that is required. The modification in life style may involve avoiding eating or drinking late at night for the patient who is not happy with waking up 2 to 3 times at night to urinate.

For those with moderate symptoms (IPSS scores of 8–19), there may be a choice between use of medications such as alpha adrenergic blockers, 5- α -reductase inhibitors or a combination of these on the one hand or surgery on the other hand.

However, for those with severe symptoms (IPSS scores 20–35), surgery offers the best hope for a successful resolution of their symptoms especially so if they are unable to void after removal of their catheter. This is also the case if there is recurrent urinary tract infection (UTI), gross hematuria, bladder stones, large bladder diverticuli or renal insufficiency attributable to the BPH.

Can Anybody be too Old for Operation on his Enlarged Prostate?

No. Nobody is too old for having prostate operation. In the correct experienced hands, age is not a restriction to operating on patients with enlarged prostates. My oldest patient so far was 110 years old.

Methods of Operation for Treatment of BPH

The operative procedures used for the treatment of BPH can be open methods or closed/endoscopic methods.

The open methods include retropubic prostatectomy and transvesical prostatectomy. These days, these methods are usually reserved for the very large prostate glands, too large to be dealt with by endoscopic methods. We are however aware that it is the most commonly available method in hospitals in the third world, including Nigeria.

The closed or endoscopic methods include transurethral resection of the prostate (TURP), transurethral incision of the prostate (TUIP), the laser prostatectomies, microwave hyperthermia of the prostate, transurethral needle ablation of the prostate, high frequency focused ultrasound, intraurethral stents and transurethral balloon dilatation of the prostate.

Of all these different methods of operating on patients with BPH, transurethral resection of the prostate (TURP) remains the gold standard, the one method to which all the other methods are compared.

Transurethral Resection of the Prostate (TURP) for BPH

Mr. Vice-Chancellor sir, TURP in patients with BPH is a major surgical procedure.

Traditionally, it is done under general, spinal or epidural anesthesia and usually requires at least an overnight fast, nothing by mouth on the morning of the operation, post-operative bladder irrigation and hospital admission for a variable period of time.

In 1995, following extensive, satisfactory experiences with caudal block regional anesthesia with 2% plain xylocaine for outpatient procedures including urethral dilatations, cystoscopies and the use of 2% xylocaine with 1 in 80,000 adrenaline for anorectal procedures over many years, I considered that since the urethra (below the prostate gland) and the urinary bladder (above the prostate gland) which are instrumented during urethral dilatations and cystoscopy share the same somatic and autonomic innervations as the prostate gland from the anterior roots of the 2nd to 4th sacral segments of the spinal cord, saddle anesthesia as is obtained with caudal block for urethral dilatation and cystoscopy, should also be adequate for

transurethral resection of the prostate gland which lies in between (Warwick & Williams 1973).

So I recruited the first patient with BPH on urethral catheter drainage who needed surgery. I explained to him that this had not been tried anywhere in the world before but that I had every reason to believe that it would succeed. He gave his consent.

He had his breakfast, received the injection and the operation went as proposed. He did not experience any discomfort during the operation and in addition, did not experience any post operative pains. I am unable to explain this additional finding of the absence of post operative pains following caudal block regional anesthesia and TURP and more research will be needed in this direction.

Excited about my discovery, I called my mentor and reported what I had stumbled on: namely

1. That I had done TURP under caudal block regional anesthesia;
2. That the patient didn't need to be admitted;
3. That the patient didn't need to be catheterised after operation;
4. That it had never been done like this elsewhere in the world.

He advised I should do up to 10 cases before going to the press. Only those patients who had functioning land telephones could be recruited for ease of checking up on them at home. There was no mobile phone back then.

By 2001, the first paper on this procedure was published, titled, "Day Case Transurethral Prostatectomy without Post-operative Urethral Catheterization: A Preliminary Study" (Okeke 2001).

Previous large studies on caudal block regional anesthesia for other procedures had demonstrated that the duration of anesthesia obtained with 2% xylocaine with 1 in 80,000 adrenaline ranged from 2.5 hours to 3.5 hours and could be longer if the local anesthetic was mixed with a sedative. This duration of 2.5 to 3.5 hours far exceeds the traditional 60

minutes allowed in urologic practice for safe TURP to keep the incidence of complications such as TURP syndrome to the barest minimum. Even in this large series, no complication attributable to this method of anesthesia was encountered (Polushin, Rostomashvili, Levshankov, Kostiuchenko & Bogatova 1998).

In my experience with the first 10 patients, I did not encounter any complication attributable to the caudal block regional anesthesia, the operation of TURP itself, or the discharge of patients on the same day without urethral catheter drainage.

It is worthy of note that since the effect of caudal block regional anesthesia was localised, and did not affect the central nervous system, musculoskeletal system, cardiovascular system or the gastrointestinal tract, the patients were hemodynamically stable during the anesthesia and post-operative period and were recommenced on normal oral feeding as soon, after the surgery, as they desired.

The method of resection adopted during these procedures of commencing at the 7 and 5 o'clock positions before tackling the median lobe and the lateral lobes is predicated on the fact that even though the prostate gland may derive its blood supply from numerous branches of the inferior vesical and middle rectal arteries, all these branches enter the prostate at the 7 and 5 o'clock positions. Therefore, commencing resection at these two positions effectively drastically reduces the blood loss experienced during the rest of the operation and makes it possible to achieve a totally bloodless effluent from the bladder at the conclusion of the procedure. This may also explain why none of the patients required blood transfusion, post operative urethral catheterization or bladder irrigation (Okeke 2001).

By the following year, a larger number of patients had undergone this procedure to confirm beyond any doubt that caudal block regional anesthesia provided excellent anesthesia for TURP and was safe even in patients with other associated medical conditions who would otherwise not have qualified for general or spinal anesthesia because of these associated co-morbidities.

Drop in Body Temperature during Turp for BPH

Perioperative hypothermia is the unintentional drop in the core body temperature to less than 36° centigrade during or immediately after a surgical procedure. The contributing factors vary and include extremes of age, low ambient operating room temperature, duration and type of the operation, type of anesthesia and use of cold irrigation fluids.

Perioperative hypothermia can lead to a wide range of detrimental effects. It causes severe shivering, which can increase the body oxygen demand by as much as 500% (Hemingway 1963), causes post-operative instability and patients have a prolonged recovery after procedures. It increases left ventricular after load, indicating increased myocardial work load and oxygen demand by the heart, which could result in myocardial ischemia during or in the immediate post-operative period especially in patients in whom the myocardial function was already compromised.

A review of available world literature had shown several efforts made in the past to combat this albatross of TURP and had included the use of drugs like clonidine and tramadol, warm irrigation fluids and external warming with electric blankets among others.

We had also experienced this complication of hypothermia a couple of times in our patients but fortunately none suffered any cardiac complication.

Mr. Vice-Chancellor sir, I set out to look for a solution to hypothermia during/after TURP and in a prospective case controlled study (trial registration number CCT-NAPN-15944), discovered that when the intravenous and irrigation fluids were both warmed to 40° C, hypothermia and shivering were abolished (Okeke 2007). This publication has led to hospitals in the developed world providing fluid warmers in theatres for warming all fluids before administering to patients undergoing procedures where there is risk of hypothermia instead of the old practice of setting up the fluids straight from the carton and using electric blankets to warm the shivering patients.

TURP in Diabetics

Diabetes mellitus is a common medical condition with prevalence rates ranging from 0.4% to 10.3% of Nigerians (Osuntokun 1971; Puepet 1994). Consequently, quite a number of diabetics also need treatment for BPH. Ordinarily, these patients will need hospital admission pre-operatively, among other reasons, to convert them from oral hypoglycemics to insulin. They also stand a higher risk of complications from general anesthesia, require intra-operative blood sugar monitoring and have problems with wound healing.

However, with caudal block regional anesthesia, they don't have to miss a meal. They do not therefore require pre-operative hospital admission, conversion to insulin or intra-operative blood sugar monitoring and are recommenced on oral feeding and oral hypoglycemic agents as soon, after their operation, as desired.

I, however, discovered that compared to the non-diabetics, there is detrusor failure in some of them following the administration of caudal block and they may need continuous catheter drainage for about 2 weeks, on an out-patient basis before spontaneous voiding is re-established.

Water as Irrigation Fluid during TURP

Ambrose Pare is credited with doing the first TURP in the 16th century. He used water for irrigation and water has continued to be used until now for TURP. Water is hypotonic and causes hemolysis if significantly absorbed especially when there is capsular perforation. Non-hemolytic irrigation fluids have come into the market but these are hypotonic, and several studies have shown that they are more often associated with higher incidence of TURP syndrome than water.

Over all, water which offers the best optical clarity which is essential for good vision during TURP should remain the irrigating fluid of choice. However, despite huge volumes of evidence in support of water as the best irrigating fluid, no

published author as yet appears to be prepared to put this out as a categorical statement.

I have done all my TURP so far with boiled and cooled water and have not had any reason to seek for alternatives (Okeke 2000).

TURP in Patients with Carcinoma of the Prostate

Sometimes, some of our patients with carcinoma of the prostate may also present with inability to pass urine. They are usually catheterised and undergo bilateral orchidectomy or commenced on some form of hormonal manipulation. If they are unable to resume spontaneous voiding, at some point, it is usually decided that they will need a limited TURP to create a channel through the prostate to enable them void on their own.

We studied this group of patients and found that tunneling TURP when performed at least one month after their bilateral orchidectomy or initiation of their hormonal manipulation allows enough time for a significant reduction of tissue friability, tissue adhesion to the resection loop, tumour circulation, intraoperative blood loss, operating time and post operative hospital stay (Okeke 2005).

Take Home Message

1. Benign prostate enlargement (BPH) is only caused by aging and is natural.
2. BPH is NOT caused by increased sexual activity.
3. BPH is not a death sentence as it can be treated satisfactorily
4. Not all patients with BPH will require an operation.
5. When operation is indicated, it can be done as a day case in most patients without any wound on the body and they can return to normal activities the same day.
6. Only patients with very large BPH will require an open operation.
7. Nobody is too old for this operation.
8. If we freely share the knowledge from this lecture, we may save the lives of our aging men with prostate enlargement.

Mr. Vice-Chancellor sir, 20 years after the discovery and introduction of this safe method of operating on patients with BPH, the information is yet to be widely circulated and our elderly men with BPH are still dying, "because of lack of knowledge" (Hosea 4:6). Most patients narrate stories of their friends and loved ones who had gone for prostate operations and never made it home alive.

Mr. Vice-Chancellor sir, now to the topic of today's inaugural lecture. If we were to be in acute retention of urine and our Lord Jesus Christ was again passing by on his way to Jericho and asked us the same question as he put to the blind beggar: "What do you want me to do for you?" My guess is that our answer will most certainly be: "Lord, that I may urinate".

Epilogue & Acknowledgement

At age 5, a little boy accidentally slipped forwards on his little stool while sitting near a boiling pot of soup over an open fire on a cold evening. In trying to support himself and break the fall, he reached out with his little hands but unfortunately, his left hand landed inside the boiling pot. He sustained hot water burns of the left upper limb.

He was immediately taken to a dispenser and had his burns wound dressed but the pains from his wounds were so much, he cried all night. Sometime in the wee hours of that night, his father took him back to the clinic on a bicycle and this time insisted on seeing the doctor.

After a little wait, a man dressed in white overall appeared. He had a look at the burned limb, took down all the dressings and then applied a very soothing cream on the wound. All the pains disappeared. No more crying, the little boy meeting the doctor for the first time, now identified the doctor as that man that takes away pains. Right from then on, he wanted to be a doctor, the person that takes away pains.

The boy didn't think too much about his ambition as he grew older but while in the secondary school at St. John's Secondary School, Alor, in the former Idemili division of

Anambra State, the dream came back to the fore. He was at home with all the science subjects but chemistry was his second nature. He however noted that none of the bright senior boys who had wanted to study medicine ever passed their concessional entrance examinations over the years.

Determined not to join the list of those who were waiting to study medicine, he decided to go in for chemistry for his first degree. In his final year, he sat for the concessional entrance examinations to the University of Nigeria, the University of Ife, University of Lagos and the University of Ibadan, all for chemistry. The results of the first three came out first but he wouldn't choose from any of them. He insisted he was going to the University of Ibadan, even though the result had not been released yet. Many years before then, he had stumbled on two very beautiful postcards of the UI gate and the Tower court while cleaning his uncle's bedroom and had decided he was going to study in that place.

Eventually, he was on his way to UI to the Faculty of Science. However, due to a very heavy downpour, the Ekene Dilichukwu luxury bus in which he travelled, arrived late in the night and it took him another couple of days to figure out which way to that UI gate he had seen on the postcard several years earlier.

One day while chatting with a pre-clinical student after Nnewi town meeting on campus, he discovered he could change to Medicine if he worked hard enough. He took up the challenge and fortunately, his name was on the list of those successful in their application for change of course to Medicine. But he then discovered there was still another big hurdle. He needed to be signed off from the Faculty of Science before he could pursue his dream in Medicine. For one week, the Dean of Science refused to sign him off, insisting that he stayed back in science to get them a first class but eventually let him go and the rest as they say is now history. The little boy with the hot water burns on his left upper limb, the little shephard boy during the civil war became a doctor.

Nobody can imagine the depth of my gratitude to God for making this possible. To him I give all thanks and adoration through our Lord Jesus Christ.

I am grateful to my parents Mr. Gabriel Nwokeke and Mrs. Jane Uchechukwu Ojukwu both of blessed memory, for my upbringing, love and trust in God. Neighbours had tried to dissuade them from letting me study in Ibadan for fear that the Yorubas would use me for juju but they trusted in God and allowed me. It is noteworthy that the Babalawos have not found me as a suitable ingredient since 1975.

I thank my brothers: Gregory, Jude, Fidelis and Raymond; and my sisters Uzoma and Ukamaka for their love and prayers and for being comfortable with my choice of living with our grandmother. My gratitude to my grandmother late Mrs. Magarete Ekweanua, my uncle late Mr. Michael Ekweanua and his amiable wife Patricia for their love and care. Incidentally, my late uncle also studied in UI during my preclinical years and was also a Great Independent and never stopped marvelling at my permanent seat in the cold room.

My gratitude goes to my cousins and their spouses, too many to mention individually and their parents, but permit me to single out Mr. Osita Anigbogu and Charlie Okolue for always being there for me.

I thank all my sponsors during my studies namely:

1. My town, Nnewi, for sponsoring me in the secondary school,
2. The Nigerian government for sponsoring me in the University and
3. The Commonwealth for sponsoring my postgraduate diploma training at the Institute of Urology, University of London with the award of the Schevenin Scholarship.

I wish to specially mention and appreciate Dr. Thomas Obi Ulasi, consultant pediatrician at the Nnamdi Azikiwe University Teaching Hospital, Nnewi. He was the preclinical

medical student back then in 1975 who informed me that it was possible to change to medicine.

To all my teachers in the primary school, secondary school and the University of Ibadan and more recently during my residency training, I say a big thank you. I wish to specially thank Professor O.O. Ajayi, the H.O.D of Surgery when I started my residency training in 1983, Professor O.G. Ajao, the H.O.D of Surgery when I was appointed Lecturer I in 1990, Professor Edet Nkposong for giving me his personal cystoscopy set, Professor Johnson Lawani for giving me his water cystometer for my dissertation and Professor I.A. Grillo, my former H.O.D Surgery for his prophesies.

To all my fellow Faculty at the College of Medicine especially at the Department of Surgery, I say thank you for your cooperation and very warm friendship.

I acknowledge all the beautiful unfading smiles from the entire non-teaching staff of the Department of Surgery, College of Medicine and the UCH since I got there in 1978. I appreciate you all.

I am grateful to Mr. Mike Bailey (FRCS) and Mr. Clive Charig (FRCS) of Epsom General Hospital, Surrey, UK, for putting me through the rudiments of endourology which I have built on and for seeing me through my dissertation on their mobile lithotripter HM3 during my postgraduate diploma. I thank the secretary of the Institute of Urology, Miss Williams and all the staff of the institute for their assistance.

During my special posting in the medical school, I walked in a bit late to an ophthalmology class. The lecturer motioned to me to come towards her at the front of the class. I thought I had had it. But instead, she took a good close look at me and said: "You know, for a moment, I wondered what my son was looking for in my class. You two resemble each other so much". From that moment, I became Professor (Mrs.) Olurin's son and I thank her husband, Professor E.O. Olurin now of blessed memory for accepting me in that capacity too and Oyin, Ofe and Picos for accepting their new brother.

I deeply appreciate my friend and mentor, a man of great achievements, who has risen to become the current Vice-Chancellor of this great University, Professor Isaac Folorunsho Adewole for his friendly and kind advice and assistance in ways too numerous to mention. The Lord will reward you abundantly.

I thank my parents in-law, Chief Obikezie Simon and Madam Justina Ifeoma Udedibia both of blessed memory for giving me their exceptionally beautiful daughter and their trust, love and support. To my brothers and sisters in-law and their spouses, I say thank you.

I deeply appreciate my better half, my dearest wife, the most beautiful creation of the Almighty with the rare combination of beauty with brains. Thanks for tolerating my inadequacies and always being there with beautiful ideas as we travel through the hills and valleys of life. Thank you also for not agreeing with me to have only one daughter but giving me five very beautiful children instead.

My special thanks to our children, Ogoma, Chinazo, Chidi, Nnadozie and Ugochukwu, for bearing with me during all the periods I was away on call. I am indeed pleasantly surprised and grateful to God that despite that, three of you still decided to study Medicine.

We heartily congratulate and celebrate with Chinazo, our second daughter who by divine design, was inducted into the medical profession earlier today. It is the Lords doing and it is marvellous in our eyes.

I am grateful to my uncle Chief, Sir, James Oguchi, the Ochendo Nnewi and his lovely wife, Lady Patricia. In 1983, soon after my National Youth Service, I went to them for a loan to buy a car. Instead, they gave me a brand new car. They have been my model for moral uprightness and success in life.

Mr. Emeka and Mrs. Ngozi Enemchukwu accommodated and fed me during the initial months of my residency training and to them I say a big thank you.

Dr. (Mrs.) Mojisola Atalabi-Oladele presented my wife and I with bundles of wonderful mothercare napkins when

our children were coming. We have not forgotten and I say thank you for your kindness.

To my wonderful neighbours at Bashorun where I live, Mr. Fela Neville (FRCS) (late) and Mrs. Adebola Akingbehin, Alhaji Muibi and Dr. Kolawole, and my good friends of many years A.I.G. Ralph Osanaiye (rtd.), Engineer and Arc (Mrs.) Olumide, Engineer Felix Oresegun and Mr. and Mrs. Ayo Fawole I say thank you.

To the outgoing Chairman of the PTA, Fontanna International Schools, Bodija, Professor T.K. Hamzari, all the parents, staff and pupils of Fontanna International Schools, I say thank you for your wonderful company.

I thank all my successive Parish priests at the Catholic Family Church of the Ascension, New Bodija for my spiritual upliftment and my fellow parishioners for their spiritual companionship.

To all members of Otolo Nnewi meeting in Ibadan, Nnewi Development Union (NDU) meeting and Otu Umunna meeting of University of Ibadan, I say thank you for your warmth.

And finally, to all of you my very wonderful audience on Diamond FM and all those who have come from far and near, I say thank you so much for coming and for your kind attention.

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Appendix

International Prostate Symptom Score (I-PSS)

Patient Name: _____ Date of birth: _____ Date completed: _____

In the past month:	Not at All	Less than 1 in 5 Times	Less than Half the Time	About Half the Time	More than Half the Time	Almost Always	Your score
1. Incomplete Emptying How often have you had the sensation of not emptying your bladder?	0	1	2	3	4	5	
2. Frequency How often have you had to urinate less than every two hours?	0	1	2	3	4	5	
3. Intermittency How often have you found you stopped and started again several times when you urinated?	0	1	2	3	4	5	
4. Urgency How often have you found it difficult to postpone urination?	0	1	2	3	4	5	
5. Weak Stream How often have you had a weak urinary stream?	0	1	2	3	4	5	
6. Straining How often have you had to strain to start urination?	0	1	2	3	4	5	
	None	1 Time	2 Times	3 Times	4 Times	5 Times	
7. Nocturia How many times did you typically get up at night to urinate?	0	1	2	3	4	5	
Total I-PSS Score							

Score: 1-7: *Mild* 8-19: *Moderate* 20-35: *Severe*

Quality of Life Due to Urinary Symptoms	Delighted	Pleased	Mostly Satisfied	Mixed	Mostly Dissatisfied	Unhappy	Terrible
If you were to spend the rest of your life with your urinary condition just the way it is now, how would you feel about that?	0	1	2	3	4	5	6

BIODATA OF PROFESSOR LINUS IKECHUKWU OKEKE

Linus Ikechukwu Okeke was born on Tuesday, the 14th of January, 1958 to the family of late Mr. Gabriel Nwokeke and Mrs. Jane Uchechukwu Ojukwu of Eziogwugwu, Otolo, Nnewi in Nnewi North local government area of Anambra State of Nigeria.

He started his early education at St. Michael's Primary School, Ubulu-Uku, now in Aniocha South local government area of Delta state in 1963 but had to escape to St. Joseph Primary School, Okofia, Otolo, Nnewi in 1967 because of the civil war and subsequently attended St. Peter Clevers Primary School, Otolo Nnewi in 1970 at the end of the war.

In 1971, he went St. John's Secondary School, Alor, in Idemili South Local Government area of Anambra State and finished as the best graduating student in 1975.

He gained admission to study Chemistry at the University of Ibadan in 1975 but subsequently changed to Medicine and graduated MB;BS (Ibadan) in 1981 with distinction in Anatomy and won the E. Latunde Odeku memmorial prize in neurosurgery.

After his housemanship at the University College Hospital, Ibadan 1981 to 1982, he proceded to Bauchi State for his NYSC where he served at the Medical Reception Services of the 23rd Armourd Brigade of the Nigeria Army in Bauchi, 1982 to 1983.

He commenced his residency training in Surgery in UCH in 1983 and obtained his Fellowship of the West African College of Surgeons (FWACS) in 1989 and later obtained the Fellowship of the National Postgraduate Medical college of Nigeria (FMCS) by examination in 2008.

He was appointed Lecturer I in the Department of Surgery, College of Medicine, University of Ibadan in 1990 and an Honourary Consultant Urologist at the University College Hospital the same year.

He won the Schevenin Scholarship and proceeded to do his postgraduate diploma in Urology at the Institute of Urology, University College, London, 1993 to 1994. In 1998, he was awarded the Fellowship of the International College of Surgeons.

Dr. Linus Ikechukwu Okeke rose through the ranks to Senior Lecturer in 1994, Reader in 2003 and was promoted Professor in 2006.

Professor Linus Ikechukwu Okeke has served as external examiner to different universities, and examines at the Part II Urology of the West African College of Surgeons. He has also served as leader and member of the West African College of Surgeons accreditation teams to many teaching hospitals in the country and as assessor for professorial promotion for many universities. He reviews for many local and international journals.

Professor Linus Ikechukwu Okeke has served the University of Ibadan in various capacities as Acting HOD of Surgery, member of the Academic Board, College of Medicine, College appointments and promotions committee for academic staff, member of Senate and a member of the UI at 60 anniversary committee.

He is a member of the Medical and Dental Consultant Association of Nigeria (MDCAN) and served as the treasurer to the UCH Ibadan branch in 1994. He is also a member of Nigeria Medical Association (NMA), National Association of Urologic Surgeons of Nigeria (NAUS), Nigerian Surgical Research Society (NSRS), Pan African Urologic Surgeons Association (PAUSA) and Association of Surgeons of Nigeria (ASON), among other professional bodies.

He is a member of Otolu Nnewi and Nnewi development union (NDU) meetings in Ibadan, Otu Umunna of the University of Ibadan (OTU), and the Catholic Men's Organisation (CMO) of the Catholic Family Church of Ascension Parish, Ibadan.

He has attended many local and international conferences and has two dissertations, chapters in books and over 60 peer reviewed journal publications to his credit.

He is married to his beauty queen, Dr. Bernedette Okwuchukwu Okeke (Ph.D) and they are blessed with 5 wonderful, loving children, 3 of whom have taken to Medicine and 2 to Engineering.

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For a mind that knows is a mind that's free

