THAT WATER MAY FLOW

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I consider it a great privilege to be invited to deliver this lecture. The inaugural lecture is generally meant to mark the assumption of a Chair—an event which in my case took place many years ago. What is particularly significant now is that a Chair has been reappointed to another post which has seen a long gap from deputation to administration. I feel that I would never have been appointed to give this lecture so many years later had there been no sense of fulfillment as an additional challenge that accompanied the Chairmanship offered by a combination of our Honours and the little Privileges that come to the holder of my position.

The theme of my lecture, "That Water May Flow", can be taken to mean that water, a necessary element for life, should not be taken for granted. Lagos University Press
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I consider it a great privilege to be invited to deliver this lecture. The inaugural lecture is primarily meant to mark the accession to a Chair — an event which in my case took place many years ago. When sometime last year, I was appointed to another post which took me a little away from academics into administration, I felt that I would never have the opportunity to give this lecture. So today, I am filled with a sense of fulfillment as an academic, a feeling that is mellowed by a certain degree of humility and not a little anxiety.

The theme of my lecture is That Water May Flow. Let me hasten to inform those who live in Victoria Island that I am not going to give a treatise on how the Atlantic can be prevented from repossessing what belonged to it; or to the mainland dwellers how to contain the floods in Lagos especially seeing that the rains have started rather early this year. Rather, I am going to talk about water in the body or flowing of water from the body. All the cells in our bodies are bathed in water, a memorial of our aqueous origin. It was Claude Bernard, the great nineteenth century physiologist, who called this water surrounding the cells the milieu interieur, the internal environment. 1 Walter Cannon, another great physiologist of the early part of this century, referred to the maintenance of constant conditions in these fluids as homoestasis 2. In the maintenance of these constant conditions, urine is formed and it flows through the kidney to the exterior. The maintenance of this passage free of obstruction, for the outward flow of urine, is a major concern of the urologist. It provides his bread, and sometimes butter also!
Urology is one of the oldest or ancient arts. In the book of Genesis we read and I quote “Every man child among you shall be circumcised. And ye shall circumcise the flesh of your foreskin”. This was part of a covenant made between God and Abraham when the latter was 90 years old. Abraham obeyed God and became the father of many nations. Circumcision appears to me therefore to be the first recorded operation by man on man. The practice is still being carried on today and the ritual appears to be the same in that in many cases we do not use anaesthesia. You may remember that when God removed a rib from Adam to make woman, Adam was put to sleep! — A deep sleep — Anaesthesia!

Let me skip many centuries and talk about some people who made medical history. These were the lithotomists. These itinerant "surgeons" cut for stones. Stones obstructing the outward flow of urine in many have been known from time immemorial. Urinary stones have been discovered in Egyptian mummies. Lithotomists cut for stone from many and varied classes of people. Like in every other art, there were good and bad lithotomists. It was around the 5th century B.C. when as part of the Hippocratic Oath, Hippocrates warned against the indiscriminate cutting for stones by those who were not practised in the art. I believe that lithotomists, the trained ones, were the ancestors of urologists.

Around the 17th century "medicine" moved from clinical observation to uroscopic quackery. Thomas Brian, a young Physician, in 1637, in a book called The Pisse Prophets condemned this quackery. This book, written in old English-language and style — makes very difficult reading.

Ronnie Beth Bush, a medical historian, in a paper titled Urine is an Harlot, or a Lier puts the basis for Thomas Brian’s condemnation very clearly. Among other things she wrote and I quote “Uroscopy is the examination of the urine for color, consistency, smell and taste, and represents one of the oldest tests known to man. Linked with the doctrine of the four humors — phlegm, blood, yellow bile, and black bile, which were white, red, yellow and black respectively — it was the only available direct laboratory test which was thought to reflect a person’s health through direct contact with all parts of the body”. Thomas Willis, in his 1681 Treatise on Urine, summarized this belief: “that as much as we cannot search into the most intimate parts of the sick body, as it were a vessel shut up, judgement is sought from the infused liquor, washing all its parts, and taking from many some little parcels.”

Uroscopy’s bastard brother, uromancy, was a fraudulent practice. Uromancers pretended to divine age, sex, general state of health, and duration of disease through the guise of the visual inspection of urine. Both practices reached the zenith of their development and popularity in Europe during the medieval and renaissance periods. Barber surgeons, charlatans, apothecaries and travelling troubadours, as well as physicians, all indulged to a greater or lesser extent in the ‘hocus pocus’ of the ‘pisse-prophet’.

The modern day urologist is sometimes all of these. He is a circumciser, a lithotomist, is versed in uroscopy and occasionally ventures a little into uromancy. He does not however dabble in hocus pocus. His scope has widened. He has a lot more to assist him in the practice of his art. The urologist today looks at his patient, listens to him, asks questions, examines, investigates and then treats. These are familiar steps to all my medical colleagues. Since however the urologist works in water or with water, he has often been called the plumber, the water works man and other less salubrious names.

I have had time to reflect on why I joined this human plumbing club. This soul searching arose because as a teacher, one has often turned round to ask a student why he ever chose to do medicine. Students give very interesting answers. In my case, I seemed to have followed a preplanned course. Following graduation, I worked with surgeons who operated on the prostate gland, the kidneys and the bladder and other urogenital organs. They got good results and enjoyed what they were doing all the time. They boasted
about their results among their colleagues. I listened to and watched these extroverts and silently admired them. They were good teachers and I found myself enjoying what I was helping them to do. I believe I was a good student too.

Return to Lagos was at first rather disappointing. People passed water in the streets as if Lagos was one large toilet. In fact they still do! One wondered at first if these people had any urological problems. My opinion however changed when I assumed duties in the wards. The male ward was full of predominantly elderly men with catheters into their bladders and carrying the drainage bags like women their shopping bags! These elderly men had urethral strictures though a few of them had enlarged prostate glands — both diseases causing water flow problems. The patients were treated by all of us SURGEONS.

At this point I must pay tribute to some of my peers who started research into urological problems and recorded their findings for posterity. Elebute and Veiga-Feires did a simple experiment using very simple materials — toy balloon and contrast medium — to study bladder neck stenosis. They were able to discover x-ray signs which would indicate the presence of bladder neck stenosis. The simplicity of the equipment is out of all proportion to the result that they obtained. The lesson we can learn from them is that one does not have to wait for very sophisticated equipment in order to engage in meaningful research. This lesson is very relevant today in the face of the present economic depression.

Omodare, working on fibrous tissues, likened urethral strictures to the formation of scars. He thought about and designed an operation for the permanent cure of urethral strictures after excising the fibrous portion of the lesion. The knowledge is still available to us through his publications.

If I have forgotten to mention any others who did contribute to urological research in this establishment, I hope it will be taken as a mistake of the head not of the heart.

The School of Medicine of the Lagos University has grown since then, so has the Department of Surgery. Good leadership from Professor Thomas, Professor Adesola, Professor Elebute, and others flowed like flood water and opened up some narrow areas. Urology came into being as a Unit in the Department in the early 1970s. The members of the specialty have continued in the path set by our predecessors. We continue to look into local urological problems and seek answers to them.

I mentioned earlier that stones preventing the flow of water in the urinary passage have been known since the time of the Pharoahs. Though Nigerians form stones, for some reasons which were not clear, we observed that Nigerians do not form stones which block the ureters. Eshe undertook to study this problem. Following a careful epidemiological study, analysis of available stones and careful clinical studies, he made some observations which have been recorded in his Thesis for the Master of Surgery degree of this University. His observations include the following important features: Nigerians do form stones which may block the ureter but not as frequently as Caucasians. The chemistry of the stones is different because the stones form following infection in the urinary tract as a result of obstruction high in the ureter. This obstruction prevents the migration of the stones down the ureter. Metabolic stones are not commonly seen. This work is a major contribution by one of us.

As this country develops, if indeed this happens in our time, I believe that we shall encounter more metabolic stones than infective ones. People will live better lives than they are living now. Or shall I say that there will be more people living better lives than they are living now. They will eat...
foods and drink wines that are no good for them. This is what will bring the metabolic stones such as uric acid stones. So far in my experience in Nigeria I have had only doctors as patients suffering from uric acid stones. They are obviously living well. I hope that other colleagues will take note and endeavour to live moderately. Uric acid stones, or any other stones in the ureter, cause very agonizing pain. We have perfected the art of cutting for these stones and have taught our residents to do so too, even when they are outside a centre such as they are in now.

Tuberculosis of the lung is still with us in Nigeria. Inspite of the proximity of the kidneys to the lungs we have not been seeing tuberculosis in the urinary tract. Our efforts to recover the organism from the urine have not been successful. Osegbe is actively involved in work to elucidate this problem. He now uses a different method to look for the organism in the urinary system and has been able to make diagnoses of urinary tract tuberculosis accurately. This has made rational treatment of the condition possible.

I stated earlier that our male surgical wards used to house mainly elderly men with urethral strictures. These were men who proudly told the doctor how many times they had gonorrhoea in the past. It was their belief then that unless a young male had gonorrhoea he was not a man. They were all men! The state, in disease, in which I was seeing them was the result of their deeds or is it misdeeds, many years later.

In the last few years we have observed a change in this pattern. We now see young men with urethral strictures as a result of road traffic accidents. These strictures affect a different part of the urethra because of the mechanism of injury. The injury is the consequence of the increase in the number of cars on the roads and higher speeds of driving on not so good roads.

Osegbe and Amaku have also observed a trend towards a shortening of the interval between infection with gonorrhoea and the development of a stricture of the urethra in young adult patients. These are young men who accept that they have been infected and treated but not adequately. They present with several symptoms of urethral stricture within a period as short as six months. This at first appeared like heresy in the face of accepted teaching which states that strictures develop at least ten years after the original infection. We are postulating that there are two types of strictures. In those cases where the interval is short, it is the severity of the urethritis and not the chronicity of infection that will determine the early development of a urethral stricture.

The importance of strictures in younger patients is economic. These are young men who are in the most productive years of their lives. Quite often they are the bread winners of the family. The treatment takes a long time and the economic consequences of a long period away from work are obvious. We continue to look for better methods of management which will involve a shorter stay in hospital.

In 1971, Amaku, da Rocha-Afodu and Elebute reviewed the prostatic lesions in Nigerians seen in the Lagos University Teaching Hospital over a five year period—from 1963–67. There were only 114 patients with various kinds of prostatic pathology of which 15 had cancer of the prostate gland. The peak incidence of the disease was in the seventh decade of life. Like water flowing through different terrain this finding has also changed in pattern.

Today, there are a lot more men presenting in our clinics with prostatic enlargement needing surgical treatment. Many of these are much younger than those we used to see in the 1960s. A lot more patients are also presenting with cancer of the prostate. It is still too early to state whether the peak incidence of this disease has dropped. We are convinced however that the increase in numbers of the patients is neither due to increase awareness by the patients of hospital treatment nor to the fact that there are three actively practising urologists in Lagos University Teaching Hospital. There has been a drastic drop in the complications which we used to see following removal of the prostate gland. This has followed a more careful selection of patients for surgery and the slightly better facilities which we now enjoy. One of these complications was severe bleeding following
surgery. This is very rarely encountered at the present time. I believe that the bleeding in the past had a hormonal basis. Our old men took hormone preparations containing testosterone in order to sustain their potency. Testosterone has the ability to prolong the clotting time of blood. It is likely that our younger men are the ones who ingest these drugs now and the older men have resigned themselves to their fate.

The prostate glands that we remove are not just being thrown into the bucket for disposal. We are using them to study the possible role of trace elements in the genesis of enlargement of the gland. We have so far been able to understand the role of zinc and magnesium in diseases of the prostate. The role of the hormone testosterone we continue to study. We know already that testosterone does play a major role in maintaining the size of the prostate gland. What extra role exogenous testosterone plays interests us presently.

This latter point becomes important as we come to look at the possible role of sexual activity on the enlargement of the prostate gland. At the moment we suspect that excessive sexual activity may play a role in prostatic enlargement but in an indirect way. The male who feels that his sexual prowess is dwindling, goes out and buys one of the rejuvenating drugs and ingests or has the drugs injected into him. As mentioned immediately earlier, all these drugs contain testosterone.

I believe that this extra hormone/hormones are probably responsible for the enlargement of the prostate. This belief is based on the following facts. Odunjo and Elebute, in 1969, classified the different types of enlarged prostates encountered in Lagos. Amaku and Obasan in 1969 undertook the study of the effect of testosterone on the prostate gland, using the rat as the experimental model. Injections of therapeutic doses of testosterone led to a significant rise in the size and weight of the glands. Histological study of the glands showed fibromyomatous hyperplasia which is one type of prostatic enlargement described by Odunjo and Elebute in 1969. The work of Amaku and Obasan has not been published but has been presented at conferences. What we now have left is to correlate the histology of glands removed at surgery, estimate the levels of testosterone in our patients, and then possibly we may be very near the answer that we are looking for. For the benefit of non-medical people among us here, the big words FIBROMYOMATOUS HYPERPLASIA only signify enlargement of the fibrous and muscle elements of the prostate gland.

The two next common complications of prostatectomy were incontinence of urine and inflammation of the testes. These we rarely see now as a result of careful selection of patients, careful pre-operative preparation of the patients, better nutritional status of the patients and increased experience in the surgical techniques.

Meanwhile we continue to live in hope. Hope that the Government will come to our aid in passing effective laws to stop the sale of certain drugs across the counter. It is true that the population is slowly poisoning itself, sometimes knowingly, at other times unknowingly. As those who have the responsibility for advice on their health, we must not tire of reminding the patients who have contact with us, that the indiscriminate use of certain drugs is dangerous. This is our sacred duty.

God made a covenant with Abraham, when he was 90 years old, that he should circumcise the flesh of his foreskin and that of every man child among him. In Nigeria, it is still the practice to circumcise female children. This was certainly not part of the covenant. This practice has its basis on traditional beliefs which so far have no scientific basis. In my part of the country it is believed that female circumcision prevents the girl from becoming promiscuous! I have not seen the proof of this published anywhere yet.

Even though the indication for circumcision in Abraham's case was not mentioned, circumcision is sometimes indicated for water flow problems. This is an operation that should never be taken lightly. I have seen children die following circumcision and I have also seen the mutilating effects of badly performed circumcision. The indiscriminate circumcision by all and sundry should be discouraged because
of some of the technical considerations needed before the operation is undertaken. For example, some male children are born with the external opening of the urethra at the wrong place. The last thing that they need, in such cases, is circumcision, until the abnormality has been corrected.

Female circumcision has led to very severe water outflow problems in some young female patients that we have seen. It must be remembered here that this so-called circumcision in the female involves more than the removal of the flesh of the foreskin. Torrential bleeding and total or almost total stenosis of the urethra are the serious complications which we encounter in hospital practice. We do not know how many female children are killed as a result of this needless meddling. Again I here call on the Government to pass and enforce a law to stop this useless operation. It takes a lot from woman.

We have been fortunate in our relationship with our Paediatric Surgical colleagues. We have not had to fight over who has the right to operate on children with urological conditions. We have experience of a rather debilitating pathology affecting male children. This is the situation in which a valve-like tissue is present just below the neck of the bladder which allows flow towards the bladder rather than out of the bladder. The situation is not conducive to life if left uncorrected. We have been able not only to diagnose accurately this problem but have surgically, by simple methods, corrected the anomaly. At a recent conference of the International Urologic Association, it was comforting to discover that our results, in spite of the lack of sophisticated diagnostic and operative tools, compared favourably with those of more developed countries.

"Be fruitful and multiply and replenish the earth." This was the command by God to Noah after the Flood. Today something like 10-40 per cent of men cannot be fruitful or multiply. They only enjoy the pleasure of sex. I have limited myself to men here because in some places, not in our College, some people believe that infertility is the preserve of the gynaecologist. Infertility in the male is a topical subject today — in a world which is said to be overpopulated.

In Nigeria, people are very unkind to any couple that has no children. Adoption is not commonly practised. We feel therefore that if it is possible to assist a childless couple to have even one child, the effort would have been worth it. We have made great strides in classifying the causes of male infertility. Some of them are due to flow problems. The man does not ejaculate, or if he does, spermatozoa do not come out. At the present time most of the patients we see fall into the group of surgically not correctable lesions. To these people we give encouragement without active intervention. Those whom we can help, we do so very actively either medically, with drugs or surgically. Our understanding of the problem has been greatly aided by the availability of hormone assays, and better understanding of physiology. The limiting factor is availability of drugs and the high cost of these drugs and the hormone assays.

Work in this area of male infertility has been my interest since 1972. When I see the numbers of patients presenting today for investigation and treatment, it gives me great satisfaction and encouragement. At the beginning, it was extremely difficult to get the men to provide seminal fluid for analysis; even though this is safe and pleasurable. They were afraid to be found to be cause of failure to replenish the earth. The woman was always at fault! The men now come very willingly and would accept all the tests including some surgical procedures. Water continually flowing wears off stone.

I may have created the impression that I am a male chauvinist or that water flow problems are the exclusive preserve of males. That is not my intention in the least. We have talked about the prostate gland and the male urethra. Women do not have prostate glands and their urethras are not long enough to cause them the problems that face their male counterparts.

One female problem that has bothered us has been the damage that women in the child bearing age sustain, during difficult child birth. This is a condition called vesico-vaginal fistula. They leak urine all the time because of inability to control the outflow of the water. Invariably they become social outcasts and often even their husbands desert them.
Our method of management of this condition has changed over the years. In the past, when it was not possible to repair the damage to the urethra, we used to divert the urine to the outside of the body where it was collected into an appliance. In this hot and humid environment, the appliance is not easy to obtain and when available is rather uncomfortable to wear around all the time. We still divert the urine nowadays but do so internally, into the colon. The patient now sits to pass urine. For women this is not at all unusual or unnatural.

Though it is not possible to catalogue all that I do as a urologist and discuss them in the space of time available, it is good to highlight the recurrent problems. One such is the situation where the urine cannot exit from the kidney and the kidney continues to enlarge in size. The problem here is that the symptoms may not be referable to the urinary tract. We call this condition hydronephrosis. There are other situations where the narrowing is at a much lower level and both the kidney and the ureter become distended. We diagnose and treat these conditions here adequately.

I do not believe that certain diseases are the exclusive preserve of developed countries. During my brief sojourn in the United States, I got involved and interested in a peculiar water flow problem in infants and children. It presented with recurrent infection in the urinary tract and affected female more than male children. It is called reflux of urine. This means, instead of urine flowing outwards during the act of passing urine, it flows back towards the kidney, from the bladder.

The possible anatomical basis of this condition had been discussed and written enough about to fill many books. I however took another look at the problem and with my teachers, discovered the muscles at the level where ureter enters the bladder which are the likely "guards" of that orifice. Their absence or diminution in quality would allow reflux of urine backwards. Incidentally this, and an operation for the correction of reflux are the basis of my Master of Surgery Thesis. 17

Like carcinoma of the breast which was supposed to be rare in Nigerians, I believe that when we begin to carefully look for reflux of urine in our young children, we shall find it. Finding reflux and its correction may augur well for the country in future in that there will be a drop in the number of people with urinary infection. This may be followed by a drop in the number of damaged kidneys. Since damaged kidneys can be the cause of hypertension, the number of people with hypertension may be reduced. Pardon the number of "may"s which I have used here. We are still in the realms of speculation.

Renal haemodialysis started in the Lagos University Teaching Hospital some three years ago. This beginning was at the instance of some of us who felt that we had the ability to offer all we know for the benefit of the sick and suffering masses. Money was also, at that time, still available. The natural sequel to haemodialysis is renal transplantation. The urologists were looked upon to make this happen. Let me state here that renal transplantation is not a difficult operation technically. I believe that any of the three urologists available now can do renal transplantation. Behind the scenes however, there is need for a lot of pre-operative work-up that needs to be done. The infrastructure for this is not yet available to us. We need a good blood bank, we need immunologists, we need material for tissue matching, we need fluids, we need even the concentrates for dialysis, we need a host of a lot of other things. We are not ready for renal transplantation yet. We cannot afford it. The population is not ready for it. They will not even give you permission to do an autopsy on a dead body in many instances. People who are not willing to part with one pint of blood most, even for their pregnant wives, certainly will be unwilling to part with a kidney. Even if one would be willing to use "touts" for obtaining the donor kidney, that source, for kidneys, is not inexhaustible. Let us make haste slowly so that we can be sure of the ground on which we are treading—like the aphorism "slow water runs deep".

It is usual for flowing water to have an outlet. In the same way we should let our knowledge have an outlet. Knowledge for the sake of knowledge avails nothing. Like the Persian Poet, Sa’di wrote and I quote:
whoever acquires knowledge and does not practise it, resembles him who ploughs his land and leaves it unsown.

Thus we must have an outreach. This outreach includes our patients, our students — both undergraduate and post-graduate and our colleagues, nationally and internationally.

In the transmission of knowledge, it is essential especially with undergraduates, to avoid dogma. No results of research are transmitted to them until they have been tested, proved and substantiated. In this respect, the students too must place themselves in a position or situation where they can receive this knowledge. It is only thus that they can be "like a tree planted by the rivers of water, that bringeth forth his fruit in his season; his leaf also shall not wither" as the Psalmist said.

For the postgraduates, what I have said so far also applies. He is in a better position to discuss and criticize. In the transfer of experience we practise the method of see one, assist at one, do one with my assistance. This method works well with us in the operating room and general management of patients.

Discussion with colleagues should be a continuous process. Attendance at suitable conferences also helps to improve our performance. It is indeed regrettable that for economic reasons, many universities find it difficult to sponsor their staff to international conferences. This could lead to a serious drop in cross fertilization — knowledge wise — in Nigeria today. Constructive criticism at some of these conferences has helped to mould some of us into university material. Let us remember that the Latin derivation of university is universitatem meaning the whole world.

It is impossible to cure all our water flow problems in this country even if the resources were available. We have however made serious inroads into many of them. Our successes have been due to the co-operation of a lot of people. Our messengers, clerical officers, secretaries, laboratory technologists and colleagues in other disciplines, deserve our thanks and expression of gratitude. However good a surgeon may be, technically and otherwise, his work can be ruined in a short time if he does not have the co-operation of his nurses before and after operation. I thank my nursing colleagues.

Uroscopy has now gone back into the laboratory. For the urologist, involved as he is in water movement, the work in this laboratory is very important and relevant. Maximum co-operation between the laboratory man and the urologist is the only way to ensure expert management of the patient. This same relationship must exist between the urologist and the radiologist, anaesthetist, morbid anatomist and all the other arms of the hospital. Without their aid, we often cannot see our way through water.

Knowledge for the sake of knowledge alone is not rewarding. Research which will not benefit the patient in this environment is superfluous. Humanity is an essential ingredient in the management of our patients. The motto of the Teaching Hospital is We Care God Heals. This has been put in a different way by Francis W. Peabody, Professor of Medicine, when in 1927 he gave a lecture to the graduating students in Harvard:

It is one thing to write an examination paper on the treatment of gastric ulcer and quite another thing to treat John Smith who happens to have a gastric ulcer.

Again, at the same lecture:

One of the essential qualities of the clinician is interest in humanity, for the secret of the cure of the patient is caring for the patient.

I do not need to explain further.

Let me try and round up what I have been saying. Since man became terrestrial and assumed the erect posture he has had water flow problems. The dynamic internal milieu has to be kept in balance and urine will continue to
form. The urologist steps in to ensure that all the passages are kept patent for easy and ready passage of the urine outwards. In order for him to achieve this aim, he meets with and very actively co-operates with many colleagues on the way. I have told you the problems I met and the efforts made to manage them. I have talked about the changing patterns of disease as we continue to see them unfold from day to day. I have paid tribute to the people who gave us inspiration and paved the way for us to follow. Some of our achievements are measurable while the majority are not. We have had failures and learn from the mistakes. In general we believe that we have come a long way but we still have a long distance to cover.

Before I stop, I have a small short advice to give to all men above the age of 40 years. I object to Lagos or Nigeria being turned into a toilet. All the same, from the age of 40 years, all men should endeavour to empty their full bladder as soon as possible and convenient when the call to do so is felt. Failure to do this may lead to acute retention of urine, a rather unpleasant and painful experience. Let me end this lecture with two quotations from *History of Medicine* by Charles Singer and E. Ashworth Underwood.

"Life is short, the art long, opportunity fleeting, experience fallacious, judgement difficult. Not only must the physician be ready to do his duty, but the patient, the attendants and the external circumstances must conduce to cure!"

Distinguished ladies and gentlemen, regrettably our present external circumstances are not conducive to the practice of food medicine as enunciated in this famous Hippocratic aphorism. I salute all my colleagues who are under these difficult circumstances, staying within the academic framework in Nigeria for the benefit of both students and patients alike.

This is my final quote from the same authors as I have just mentioned:

"No man can forecast the advances in medical thought and practice which will be made in future. That there will be advances is certain. It is also certain that, however great the advances, they will not prevent each of us dying when his time comes. They will have done much if they enable each man and woman to live free from organic disease to a ripe old age.

Medicine cannot give immortality, but it should enable each of us to live out our full lives. Death coming in due not undue time, is born of much of his sharpness when it can be said of everyone 'thou shalt come to thy grave in a full age, like as a shock of corn...cometh in in his season (JOB. 5:26)'"
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