CANCER OF THE PROSTATE

Cancer of the Prostate is the commonest cancer in the world; apart from cancer of the skin among people of light skin colour exposed to excessive ultraviolet light (in the tropics or Australia).

Cancer of the prostate is even a bigger problem here for us in Jamaica as we have the highest incidence of this disease recorded in the world. To put it in perspective, in the female, cancer of the breast occurs in about 50 per 100,000 and cancer of the cervix c. 45 per 100,000 (these are the two most common cancers in the female), whereas cancer of the prostate in Jamaica has an incidence of 304 per 100,000. At age 55 in Ja. 60% of men will have a prostatic cancer and this becomes more common with increasing age.

On the 'bright side' most cancers of the prostate are not aggressive so that more men will die with it instead of from it, however due to its prevalence it remains the second most common cancer killer in Jamaica.

Looking briefly at the anatomy the normal prostate is about the size of a lime with a hole cut through it from the stem to the apex and is applied to the neck of the bladder so that urine passes through the middle of it when one urinates. As it grows as happens after ages 45 to 50 in every man due to hormonal changes the hole through which urine passes becomes compressed leading to variable difficulty in voiding urine. In the body, the prostate lies just in front of the rectum and as cancer usually starts in the back of the gland this is usually easily felt by a finger in the rectum, called a DRE (digital rectal examination). Note that as cancer starts in the back of the gland away from the tube through which urine passes, by the time it has spread to affect the tube the 'horse has long gone through the gate' and chances of cure are slim. So early curable cancer of the prostate has no symptoms and the man feels entirely normal!! To repeat, early curable cancer of the prostate has NO SYMPTOMS!! Very much later on there may be weight loss. Pain in the lower back and urinary problems.

Early symptoms are related to the growth of the gland which takes place in almost every man at about age 50 and these may make him see his Dr. who may then pick up an early cancer. When cancer of the prostate is diagnosed early and treated, chances are that the man will eventually die from something else which is the aim of the Urologist, as we all must die from something!!

We therefore strongly advocate annual screening for all men over forty if there is a family history of the disease, so that early cancer of the prostate if present may be found and treated. Screening is when a person without symptoms is investigated to rule out a particular disease. The process involves a visit to the Doctor who will do a DRE, one of the reasons that men prefer not to be screened as it involves a gloved finger in the rectum to examine the prostate. This ideally is done by a Urologist (there are about 15 well qualified and well trained urologists in Kingston) who not only by experience will make the procedure less uncomfortable but who also have educated fingers and will know what they are feeling. About 40% of early prostate cancers are missed by the DRE as the prostate may feel normal and so a PSA blood test (Prostate Specific Antigen) is also done. In 40% of cases elevation of the PSA is due to some other cause besides cancer and in 20% the PSA will be normal when there is a cancer present!! The PSA test is therefore of limited accuracy and should be interpreted by the Urologist as otherwise the PSA to the patient will mean 'Producer of Stress and Anxiety'. If either of these tests is abnormal (DRE or PSA) then at least 12 needle cores are taken from the gland and the specimen sent to a Pathologist who will advise if there is a cancer present or not. If there is none the patient is seen every six months and may even be biopsied if findings continue to be suspicious. If the biopsy shows cancer, the aggressiveness of the tumour is noted and a special 'x-ray' is done to rule out overt spread to the bone. Treatment options are then discussed. These range from surgical removal to watchful waiting depending on the aggressiveness and spread of the tumour.

As a surgeon, surgical removal is the treatment of choice if the patient is less than 70 years old, the PSA is less than 25 and there is no evidence of spread. Another option if the patient is older than 70 years, there is no spread and the cancer is

curable is radiation which burns out the tumour either by external beam or by radioactive seeds placed locally in the gland.

Hormonal therapy is used if the cancer has already spread. Cancer of the prostate needs male hormone to grow in the same way that a young tree needs water and fertilizer, without which it grows very slowly and may remain stunted. Thus removal of the testes, the source of male hormone (surgical castration) or antimale hormone drugs (medical castration) are effective palliative treatments.

If less than 5% of the specimen is involved with a non-aggressive tumour in an older man the patient may be treated conservatively with 6 monthly visits including PSA's and DRE's and biopsies may even be repeated if indicated by changes in any of the above.

How does one PREVENT cancer of the prostate, apart from choosing your gender or having your testicles removed before puberty, there is no certain way. DIET is important and so avoid eating things that are known to increase the incidence such as fatty red meats, instead eat fish (not fried), turkey, chicken without the skin, vegetables, drink anti-oxidant juices such as pomegranate, tomato, soursop and above all exercise as this strengthens the immune system and cancer is an immune related disease. Certain drugs have been used which decrease the levels of testosterone but most younger men prefer not to take these because of the risk of erectile dysfunction.

Our increased incidence in Jamaica is not clearly understood but is quite likely due to combination of factors such as heredity, diet and probably something in the soil which may not affect the mortality. I started the ackee controversy over 30 years ago and indications are that eating ackee in moderate amounts has no effect on the production of prostate cancer.

There are three take home messages, the first being that all men from age 40 in Jamaica or at the latest age 45 should be screened annually for prostate cancer. The second is that the Garden of Eden story in Genesis is quite likely true and the prostate was given to man as part of his punishment and placed strategically around the neck of the bladder to cause problems as he gets older. As the prostate is the only structure or organ that a man has to which the female does not have a counterpart, the third is that the supreme being is almost certainly female as no male God would have given man a prostate and placed it where it is.

Prof. Lawson Douglas $\label{eq:prof.Lawson Douglas}$ Presentation to the Anglican Community at the UWI Chapel $\\ \text{March 11}^{\text{th}} \ 2018$