

TheSynapse

The Medical Professionals' Network

M E N ' S H E A L T H

Prostate Cancer

Part III – Surgical Management

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The other articles in this series dealt with aetiology, clinical presentation, investigations, staging and management. In Part III, Dr Vassallo deals specifically with surgical management of prostate cancer.

Good candidates for surgical treatment of prostate cancer should have one or more of the following characteristics: they should be otherwise healthy, under 70 years of age, expected to live for at least another 10 years, the disease should be confined to the prostate (T1 or T2) and no bony metastases should be present. There are several surgical options for prostate cancer.

Cryoablation can be used to destroy cancer cells by twice rapidly freezing and thawing cancerous tissue. It is recommended for patients who cannot tolerate surgery or radiation therapy, tumors confined to the prostate (T3 or less) or in cases where radiation therapy has failed. Transrectal ultrasound and prostate biopsy are performed prior to cryosurgery to determine the exact size and location of the tumor. The procedure is performed under epidural nerve block or general anesthesia.

With the patient in the supine position, the surgeon inserts a warming catheter into the urethra to protect it from freezing temperatures. An ultrasound transducer is inserted into the rectum, so that the surgeon can see the prostate and surrounding tissue and monitor placement of the cryoprobes. The surgeon then makes 5 to 8 needle punctures in the perineum and advances the needles to preselected locations in the prostate tumor. Liquid nitrogen or argon gas circulates through the probes and freezes cancer cells to -40°C .

The temperature in and around the prostate is monitored with thermosensors, also inserted through the perineum. Once the spheres of tissue surrounding the cryoprobes are covered with ice, the liquid nitrogen or argon circulation is stopped

and the area is allowed to thaw. The freeze-thaw cycle is repeated and then the instruments are removed. The procedure lasts about 2 hours and the patient may be discharged on the same day. A urethral catheter is necessary for about 3 weeks. Most patients report very little discomfort and recover fully within days. Recent studies show that 97% of cryosurgery patients are cancer free at 1 year and 82% are cancer free at 5 years following surgery. Cryosurgery usually can be repeated safely if recurrence occurs. Incontinence or urethral obstruction occurs in about 1% of patients. There is an 85% chance that freezing will result in nerve damage with resulting erectile dysfunction. However, nerve-sparing techniques are being developed to help reduce that risk.

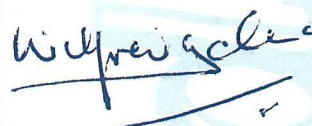
High intensity focused ultrasound (HIFU) is currently undergoing clinical trials. HIFU is a noninvasive treatment that uses precision-focused ultrasound waves to ablate targeted prostatic tissue. It has been shown to effectively treat localized prostate cancer as well as benign prostatic hypertrophy. In clinical trials, HIFU is performed on an outpatient basis, under anesthesia. HIFU can be repeated as necessary, and each treatment takes 1-3 hours. Following treatment, a catheter is necessary for about 1 week and most patients are able to resume regular activities within days. Impotence occurs in 1-7% of patients.

Radical prostatectomy may be performed in selected individuals with tumor localized to the prostate (T1 and T2). This involves surgical removal of the prostate and surrounding tissues, including the seminal vesicles and pelvic lymph nodes.

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Editor's Word

Hello and welcome to the first issue of TheSynapse magazine for 2006. In this issue you will read the third and last part of the series on **Prostate Cancer**, this part deals with surgical management. We continue with our focus on Cardiovascular Disease and we present an article on **Diet and Cardiovascular Disease** by Alicia Galea. Prof. Albert Fenech presents part 1 of a series of articles on Cardiology Today, the first article deals with **Ischaemic Heart Disease**. The interesting Interrelationship between Periodontal Health and Cardiovascular Disease is tackled by Dr Alex Cassar in the Sweet Tooth Section. The focus then shifts to **Cardiovascular Nursing Care in Malta** presented by Vincent Gatt. On a different note we have an interesting article by Dr Charles Savona-Ventura writing on **Medieval Dermatological Hospitaler Orders**. Last but not least we have an update on the **Avian flu and Pandemic influenza** by Dr Tanya Melillo Fenech. Unfortunately the Moneywise article will not be published in this issue. May I take this opportunity to invite you to stay in touch with TheSynapse on the Internet. TheSynapse web portal is the ubiquitous resource for relevant information with daily updates. A well deserved thank you to all the dedicated staff, contributors and advertisers for their support. Keep up the good work.

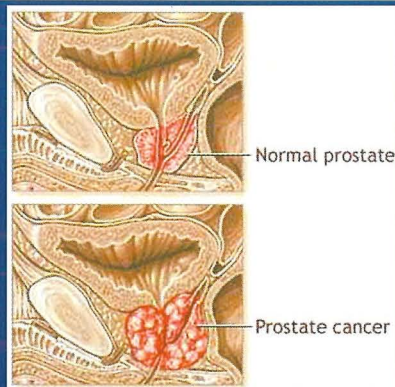


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Two surgical techniques are available, retropubic prostatectomy or perineal prostatectomy. With perineal prostatectomy, a second procedure (lymphadenectomy) is required to remove the pelvic lymph nodes. Both open surgical procedures require a 3-7 day hospital stay and catheterization for 2-3 weeks. The 10-year survival rate after radical prostatectomy ranges from 75-97% for patients with well and moderately differentiated cancers and 60-86% for patients with poorly differentiated cancers. Incontinence and impotence are potential complications, however 40-65% of men retain their erectile function.

Laparoscopic radical prostatectomy and robotic laparoscopic radical prostatectomy are performed through several small incisions to allow insertion of the laparoscope and surgical instruments. The procedure has also been performed remotely using robotic equipment (e.g. da Vinci[®] surgical system). The robotic surgical system provides a high magnification and a high resolution view of the operative field and surgery is performed using robotic arms and instruments under direct control of the surgeon. Not all surgical patients are good candidates for the laparoscopic approach. Laparoscopic radical prostatectomy causes less morbidity.

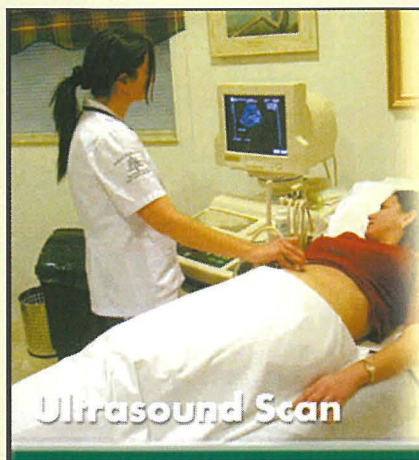
Catheterization is required for approximately 3 days following the procedure.

Lymphadenectomy may be performed to minimize the possibility of metastases appearing in lymph nodes at a later stage. This is more likely in patients with very high Prostate-Specific Antigen results. Open or laparoscopic lymphadenectomy may be performed.

Prognosis and Prevention

When cancer is confined to the prostate gland, the disease is usually curable. A number of patients with locally spread cancer die within 5 years. Once cancer has spread to distant organs, life expectancy is usually less than 3 years. While prostate cancer cannot be prevented, measures can be taken to prevent progression of the disease. It is important for men over 40 to have an annual prostate examination. When identified and treated early, prostate cancer has a high cure rate.

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