World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-33, April 2024
ISSN: 2749-3644

A MULTIDISCIPLINARY APPROACH TO ADJUNCTIVE TREATMENT OF COMORBID UROLOGICAL PATHOLOGY IN PROSTATE CANCER.

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Article history:
Received: January 10th 2024
Accepted: March 7th 2024

Abstract:

This article explores the importance of using a multidisciplinary approach to the management of concomitant urological pathology in patients with prostate cancer. It discusses the relationship between prostate cancer and urological conditions, provides a literature review, suggests effective methods of integrated care, and provides insight into potential outcomes and debates. Ultimately, it highlights the importance of collaboration between healthcare professionals to optimise patient outcomes.

Keywords: prostate cancer, urological pathology, multidisciplinary approach, comorbidity, integrated care.

Prostate cancer remains one of the most common cancers affecting people worldwide, with a major impact on urological health. Often, patients with prostate cancer have concomitant urological conditions that can complicate diagnosis, treatment, and overall management. Addressing concomitant urological pathology in prostate cancer requires a comprehensive and multidisciplinary approach. This article explores the importance of such an approach, analyses the available literature, details the methods of integrated care and discusses potential outcomes and implications.

Many studies have emphasised the complex relationship between prostate cancer and various urological pathologies, including benign prostatic hyperplasia, urinary tract infections and erectile dysfunction. These comorbidities often cause difficulties in diagnosis and treatment, requiring a holistic approach that takes into account the complex interactions between these conditions. Literature shows that a multidisciplinary approach involving collaboration between urologists, oncologists, radiologists and other specialists is crucial for effective management of concomitant urological pathology.

Implementation of a multidisciplinary approach begins with a comprehensive assessment of the patient, including a detailed history, physical examination and diagnostic tests such as prostate-specific antigen levels, imaging studies and urodynamic evaluation. A multidisciplinary team of specialists from different fields is then assembled to develop a comprehensive treatment plan tailored to the patient's individual needs. This plan may include a combination of medical, surgical and interventional approaches to optimise cancer outcomes and effectively manage associated urological conditions.

The management of associated urological pathology in prostate cancer requires a multidisciplinary approach, bringing together different specialities to treat the cancer itself and associated urological conditions. Here is a summary of how such an approach might be structured:

Multidisciplinary team: building a team consisting of urologists, oncologists, radiation oncologists, pathologists, radiologists, and possibly other specialists, depending on the comorbidities present.

Comprehensive evaluation: a complete assessment of the patient, including the extent of prostate cancer, the nature and severity of any urological pathology, and the patient's overall health.

For a comprehensive assessment of a patient with prostate cancer, as well as any urological pathologies and general health status, the following may be undertaken:

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- Medical history: obtain a detailed patient history, including previous diagnoses, treatments, surgeries or medications related to prostate cancer or other urological conditions. Also ask about family history of prostate cancer or other cancers, as well as relevant lifestyle factors such as smoking or diet.
- Symptom assessment: assess the patient's symptoms related to prostate cancer and urological problems. Common symptoms of prostate cancer may include urinary frequency, urges to urinate, nicturia, difficulty starting or stopping urination, poor urine flow, blood in urine or semen, erectile dysfunction, bone pain, or weight loss.
- Physical examination: perform a complete physical examination, including a finger rectal examination to assess the size, shape, and hardness of the prostate. Also, check the abdomen for signs of masses or enlarged organs and assess for enlarged lymph nodes.

- Biopsy: If prostate cancer is suspected based on clinical findings and PSA levels, a prostate biopsy may be performed to confirm the diagnosis and determine the extent and stage of the cancer.

- Urological pathology assessment: assess any urological pathology such as urinary tract infections, kidney stones, bladder dysfunction or other prostate diseases such as prostatitis or BPH.

- General health assessment: review the patient's general health, including comorbidities, medications, functional status, and other conditions that may affect treatment decisions or prognosis.

- Specialist consultations: depending on the results of the assessment, involve other specialists such as urologists, oncologists, radiation oncologists or other health care providers to develop a comprehensive treatment plan tailored to the patient's needs.

- Psychosocial assessment: explore the patient's psychosocial well-being and support system, as a cancer diagnosis can have significant emotional and psychological consequences. Suggest appropriate support services or referrals to address any psychosocial needs.

By following these steps, healthcare providers can comprehensively assess a patient with prostate cancer, urological pathology, and overall health, allowing them to develop a personalised treatment plan and provide optimal care.

Treatment Planning:

- Prostate cancer treatment: determine the most appropriate treatment for prostate cancer, which may include surgery, radiation therapy, hormone therapy, chemotherapy, or a combination of these.

Prostate cancer treatment planning usually involves a multidisciplinary approach, taking into account various factors such as the stage of the cancer, the patient's overall health, and patient preferences. Overview of treatment options:

- Active surveillance: Active surveillance may be an option for small, slow-growing and localised low-risk prostate cancer. This includes regular monitoring of the cancer with psa (prostate-specific antigen) tests, finger rectal examinations and periodic biopsies. Treatment is only started if the Cancer shows signs of progression.
- - Surgery (prostatectomy): surgical removal of the prostate gland may be recommended for localised prostate cancer. This can be done using open surgery or minimally invasive techniques such as laparoscopic or robotic prostatectomy.
- - Radiation therapy: Radiation therapy uses high-energy rays to kill cancer cells. It can be delivered externally (external beam radiation therapy - EBRT) or internally (brachytherapy). Radiation therapy can be used as the main treatment for localised prostate cancer or to kill remaining cancer cells after surgery (adjuvant therapy).
- Hormone therapy (androgen loss therapy-ADT): Prostate cancer cells often rely on male hormones (androgens), such as testosterone, to grow. Hormone therapy aims to reduce the levels of these hormones in the body or block their effects on cancer cells. It can be used alone or in combination with other treatments. Common options for hormone therapy include lhrn agonists/antagonists, antiandrogens and drugs that block the production of androgens by the adrenal glands.
- - Chemotherapy: chemotherapy may be recommended for advanced prostate cancer that has spread outside the prostate or has become resistant to hormone therapy. Chemotherapy drugs are given intravenously or orally and kill rapidly dividing cells, including cancerous cells.
- - Immunotherapy: immunotherapy is a new approach that works by stimulating the body's

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immune system to recognise cancer cells and attack them. It can be used in some cases of advanced prostate cancer, especially when it has stopped responding to other treatments.

- Targeted therapy: Targeted therapy drugs are designed to target molecules or pathways involved in the growth and development of cancer. Although targeting therapy is not as widely used for prostate cancer as other treatments, targeting therapy may be recommended in some cases, especially in cases involving advanced or metastatic disease.

The choice of treatment depends on various factors such as the stage and aggressiveness of the cancer, the age and general health of the patient, possible side effects of treatment, and patient preference. Treatment decisions must be made in coordination with a multidisciplinary team including urologists, radiation oncologists, medical oncologists and other specialists to tailor the approach to each patient.

- Management of urological pathology: develop a treatment plan for associated urological conditions such as benign prostatic hyperplasia, urinary tract infections, urinary incontinence or erectile dysfunction. This may include medication, minimally invasive procedures or surgery.

Addressing co-occurring urological conditions such as benign prostatic hyperplasia (BPH), urinary tract infections (UTIs), urinary incontinence or erectile dysfunction (ED) often requires a comprehensive approach that includes a combination of medications, minimally invasive treatments, lifestyle changes and, in some cases, surgery. Here is a general plan for addressing these conditions:

Patient education and lifestyle changes:

- Educate patients about the conditions, their causes, and potential treatments.
- Encourage lifestyle changes such as maintaining a healthy weight, exercising regularly, avoiding bladder irritants (e.g., caffeine and alcohol), practicing good genital hygiene, and ensuring proper hydration.

Medication Management:

-For BPH: alpha-blockers (e.g., tamsulosin) or 5-alpha-reductase inhibitors (e.g., finasteride) may help manage symptoms.

- If imp: antibiotics are usually prescribed to treat infection. Patients with recurrent UTIs may use low-dose antibiotics as prophylaxis.
- For urinary incontinence: depending on the type (stress, urge, overflow, etc.)), cholinolytics, beta-3 agonists, or medications such as mirabegron may be prescribed.

-For impotence: phosphodiesterase type 5 inhibitors (e.g. sildenafil, tadalafil) are often the first line of treatment. Other options include vacuum erection devices, intraurethral suppositories, or injections.

Minimally Invasive Procedures:

-PGI: procedures such as transurethral microwave thermotherapy (tumt), transurethral needle ablation (tuna), or prostate artery embolisation (PAE) may be considered for patients who do not respond to medications.

- Urinary incontinence: options include sacral neuromodulation, percutaneous tibial nerve stimulation, or infusion agent injections.
- Erectile dysfunction: penile implants or shockwave therapy may be considered if medications are ineffective or contraindicated.

Surgical Intervention:

- BPH: severe cases may require transurethral resection of the prostate (Turp), laser prostate surgery (such as HoLEP) or robotic prostatectomy.
- Urinary incontinence: surgical options include ligation procedures or artificial placement of the urinary sphincter.
- Erectile dysfunction: penile implants or vascular surgery (penile revascularisation) may be considered when other treatments fail.

Monitoring and follow-up:

-Regular visits to track progress, adjust medication and address any new problems.

- Encourage adherence to prescribed treatments and lifestyle changes.
- Provide ongoing patient education and support.

By taking this comprehensive approach, healthcare providers can effectively manage co-occurring urological conditions and improve patients' quality of life. However, it is important to tailor the treatment plan to each individual's specific needs and preferences.

- Care coordination: ensuring coordination between the various professionals involved in patient care to optimise treatment outcomes and minimise complications.

Minimally invasive techniques: wherever possible, use minimally invasive techniques to minimise trauma, reduce recovery time and improve patient outcomes. For example, minimally invasive surgical approaches for prostate cancer and urological diseases may include laparoscopic or robotic procedures.

Patient education and support: Provide comprehensive information to patients about their conditions, treatment options and potential side effects.

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Offer support services such as counselling, support groups and resources to help patients cope with the physical and emotional challenges of diagnosis and treatment.

Regular monitoring and follow-up: schedule regular follow-up appointments to monitor patient progress, evaluate the effectiveness of treatment, and address any new or ongoing concerns. This includes monitoring prostate-specific antigen (psa) levels for prostate cancer recurrence and assessing urological symptoms and complications.

Research and innovation: stay abreast of the latest research findings and technological advances in prostate cancer and urology. Consider participating in clinical trials to gain access to state-of-the-art treatments and contribute to scientific knowledge.

By taking a multidisciplinary approach to the management of urological comorbidities in prostate cancer, healthcare professionals can optimise patient outcomes and quality of life by addressing the complex interactions between cancer and other urological conditions.

The discussion revolves around the importance of co-operation between healthcare professionals in the management of concomitant urological pathology in patients with prostate cancer. This emphasises the need for ongoing communication and coordination between professionals to ensure continuity of care and optimal treatment outcomes. In addition, the discussion explores potential challenges, such as resource allocation, interdisciplinary conflicts, and patient compliance, and suggests strategies to overcome these obstacles.

CONCLUSIONS AND SUGGESTIONS:

Thus, a multidisciplinary approach is indispensable in the management of concomitant urological pathology in patients with prostate cancer. By combining the expertise of different specialists, this approach facilitates comprehensive care for cancer and urological problems. Healthcare providers should prioritise the creation of multidisciplinary communities and develop a collaborative culture to provide high-quality, patient-centred care. In addition, further research is needed to explore innovative strategies and technologies that may enhance interdisciplinary care in this patient population.

The comprehensive management of prostate cancer-related urological comorbidities requires health care providers to work collaboratively across disciplines. By adopting a multidisciplinary approach, clinicians can optimise treatment outcomes, increase patient satisfaction and ultimately improve the overall quality of care for people with prostate cancer and urological comorbidities

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