PERSON CENTRIC MEDICINE IN UROLOGY PRACTICE

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Person centric healthcare is a quadrangle where all four arms are vital to take care of individual patient.
DEFINITION

The tailoring of therapy to the needs, wishes, fears, and condition of the patient, also taking account of the individual’s circumstances.
ADVANTAGES

- Based on individual biological and clinical information
- Potential to allow patients to receive drugs specific to their individual disease
- Increase the efficiency of the healthcare system
- Cost-effectiveness
- Improve stratification and timing of health care
Since the disease of urogenital system bears different social taboos person centric care is the basic necessity. The practice basically involves the management of urinary and genital system.
Genital system

• Sexual problems and Infertility
• Diseases of genital system

The system which is most important from CREATION to RECREATION is often neglected by the patients and the physicians.

Confidence of the patient in his doctor and confidentiality is a must for management of such diseases.
Some common instances of people centric medicine in Urological Practice

- Malignancy of prostate glands
- Renal Diseases
- Stone Disease
- Female urology- Painful Voiding
How Gender Affects Personalized Medicine

- Males more susceptible to infection
- Men need more aggressive cancer care
- Men more susceptible to depression and stress
- Men more self reliant and follow up is poor
- Men more likely to violate follow up protocols
- Poor social support of men
Personalized Medicine: Ca Prostate Case Study

Diagnostic Stage:
- Age
- Family History
- Symptoms
- Patients Expectations
- Gleason Grade
- Extent of Disease
- PSA
- PCA3
- mRNA

Therapeutic Stage:
- Stage of Disease
- Tumor Bulk
- Residual Tumor
- PSA
- Age
- Patients Decision
Personalized Medicine: Ca Prostate Case Study

- Ideal Pca decision-making process is a wise balance between idealism and realism.

- Pca screening and diagnosis should lead not only to discriminate men with or without cancer, but also should emerge and discriminate indolent from clinically significant tumors.
Personalized Medicine: Ca
Prostate Case Study

• Risk factors are age, family history, race, and possibly diet and exercise.

• Overall survival excellent (many years)

• Surgery and radiation are tools for early prostate cancer

• Hormonal therapy is effective for metastatic prostate cancer

• Hormone refractory prostate cancer responds to chemotherapy, with occasional long term improvement.
• Renal stone disease continues to be considerable medical problem, often causing significant patient morbidity.

• Prevalence - 10% to 15%
Renal Stones

-Age- Peak in 30 to 69 years group

-Gender- Males > Females

-Geographic location- Higher prevalence of stone disease is found in hot, arid, or dry climates such as the mountains, desert, or tropical areas

-Body Mass Index and Weight
Management of urinary tract stones needs awareness and person centric treatment where all the four arms of patient care play a vital role.
How to treat renal stones...

• **Medical management (Medicines)**
  1) Less than 6 mm stone.
  2) No infection
  3) No obstruction
  4) both kidneys function normal

• **Surgical stone management**
  1) Large stone
  2) Infection
  3) renal failure
  4) stones in both kidneys
Medical management of Renal Stones

Prevention

Increase the intake of fluids per day

Increase the intake of citrates
Decrease the intake of oxalates

Decrease the intake of phosphates

Decrease the intake of salt
Surgical management

1. **Assess stone size**
   - **< 1 cm**: SWL
   - **1 - 2 cm**: Assess stone composition
     - **COM, cystine, brushite**: URS or PNL
     - **Other**: Assess stone location
       - **Lower Pole**: URS or PNL
       - **Renal Pelvis, Upper Pole, Mid-calyceal**: SWL or URS
   - **> 2 cm**: PNL
The triangle of patient centric approach in CKD

Urologist

Medical social worker

Nephrologist
Stages in Progression of Chronic Kidney Disease and Therapeutic Strategies

- **Normal**
  - Screening for CKD risk factors

- **Increased risk**
  - CKD risk reduction; Screening for CKD

- **Damage**
  - Diagnosis & treatment; Treat comorbid conditions; Slow progression

- **↓ GFR**
  - Estimate progression; Treat complications; Prepare for replacement

- **Kidney failure**
  - Replacement by dialysis & transplant

- **CKD death**
  - Complications
## Prevalence of CKD and Estimated Number of Adults with CKD

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>GFR (ml/min/1.73 m²)</th>
<th>Prevalence*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>N (1000s)</td>
</tr>
<tr>
<td>1</td>
<td>Kidney Damage with Normal or ↑ GFR</td>
<td>≥ 90</td>
<td>5,900</td>
</tr>
<tr>
<td>2</td>
<td>Kidney Damage with Mild ↓ GFR</td>
<td>60-89</td>
<td>5,300</td>
</tr>
<tr>
<td>3</td>
<td>Moderate ↓ GFR</td>
<td>30-59</td>
<td>7,600</td>
</tr>
<tr>
<td>4</td>
<td>Severe ↓ GFR</td>
<td>15-29</td>
<td>400</td>
</tr>
<tr>
<td>5</td>
<td>Kidney Failure</td>
<td>&lt; 15 or Dialysis</td>
<td>300</td>
</tr>
</tbody>
</table>
CKD – Risk Factors

- Diabetes Mellitus
- Hypertension
- Cardiovascular Disease
- Obesity
- Metabolic Syndrome
- Age and Race
- Acute Kidney Injury
- Malignancy

- Family history of CKD
- Kidney Stones
- Infections like Hep C and HIV
- Autoimmune diseases
- Nephrotoxics like NSAIDS
Coping up with the disease and long term planning for treatment

• As soon as patient is diagnosed to be suffering from kidney failure, common reaction is one of denial. If the onset is sudden there will be a different reaction in patients depending upon the situation.

• Later on, as the treatment progresses the patient accepts the disease however he feels depressed. At such time patients need lot of support and understanding.

• Employees or colleagues at jobs need to be informed about leave, reimbursement and other formalities. There would be a loss of income for 2-3 months, which would need help/compensation from other relations or family members.

• Near and dear ones require being patient, understanding and flexible.

• The social worker will also help to find out ways towards better adjustment to the disease.
Person Centric Approach
Management of Chronic Renal Diseases

• When person has a renal failure, excess wastes and chemicals start to accumulate in the blood

• Patients has 2 options
  
  Dialysis
  Kidney Transplantation

• There are several factors in each individuals case which determine whether a kidney transplant or life long dialysis is the better form – age, availability of family donors and presence of antibodies in the patients
Management alternatives in end stage renal disease

1. Dialysis
   - Continuous ambulatory peritoneal dialysis (CAPD)
   - Maintenance hemodialysis

2. Kidney transplantation

3. Palliative (conservative) management
Frequency Dysuria syndrome and painful bladder with or without urinary tract infection are few of the most common conditions in female encountered in daily practice of urology. The management should be focused on individual patient. Apart from local diseases many vital issues unrelated to urinary track play a very significant role in making the patient miserable.
Painful bladder syndrome

– Chronic (>6 weeks) Suprapubic pain related to bladder filling, frequency, in the absence of urinary infection or other pathology

– Diagnosis by exclusion

• Epidemiology:
  • F: M = 5:1
  • Asso with: allergies, Irritable bowel syndrome, fibromyalgia, Sjogren’s syndrome, inflammatory bowel disease
Some common factors affecting female patients

1. Hormonal influence according to age and gynecological condition.

2. Individual patient mindset influenced by the family and social background.

1. Different social determinants making local hygiene poor
Person centric management in female urology includes:

Careful history, sympathetic listening to the patient. Exploring the possibility of different factors contributing to the problem is primary necessity.

Casual approach to treatment without connecting to the patient and taking all the surrounding factors into account is the frequent cause of treatment failure making the patient miserable which affects her family, the work place and social life.
Practice of urology deals with the vital human system which apparently does not seem to be as important as some other systems. But, diseases of urogenital system makes the patient miserable and he/she is very hesitant to share the problem with any body which may include even the spouse.

A careful handling of such patients on individual basis keeping the confidentiality as the highest priority is extremely important.