Ethics, challenges and management of sepsis in chronic peritoneal dialysis patients with HIV/AIDS in resource limited environments

Zubair Asmal

HIV and Kidney Failure

- **Multiple causes:**
  - infection, drugs, inflammation, HIV
- **Prevalence:**
  - 5-6 million in South Africa
  - 12% of the population
- **Kidney failure + HIV:**
  - 10% will develop CKD
- **Risk factors:**
  - Black population, CD4 < 200, HIV load > 4000, Diabetes, hypertension, hep C
- Now known they do well on dialysis as well as transplantation

→ **INCREASE IN RENAL FAILURE IN FUTURE**

Advantages of PD in HIV +ve patients

- HD and PD equivalent in non-HIV group
- PD better in patients with residual renal function
- Some studies suggest that some HIV/CRF patients may actually improve on PD
- Survival on dialysis greater than non dialysis
- ARVs improve survival

→ **PD IS BENEFICIAL IN HIV PATIENTS**

Challenges of PD in HIV +ve patients

- Accurate Dx of cause and hence Mx
- Increased infection rate (peritonitis)
- Presence of unusual infections
- Increased incidence of cardiovascular events
- Complexity in ancillary management of CRF (anaemia, BP, bone disease)

- Decreased quality of life
- Disposal of waste (PD fluids contain HIV)
- Survival less than in general HIV population
- Increase in cost

MORE DIFFICULT AND COSTLY TO TREAT!!!

Peritonitis

- More common in HIV patients
- Unusual infections
- Multiple infections
- More expensive to treat
- Longer duration of treatment
- Start empiric broad spectrum cover, do cultures and then treat accordingly
- Often sick patients requiring ICU
- “Burn out” of membrane necessitating change to haemodialysis

TO TREAT OR NOT TO TREAT

Previously

- No guarantee for ARVs
- No hope for transplantation
- Multiple co-morbidities
- Medically futile
- Respect for life/death with dignity
- Poor resources

Currently

- Access to ARVs
- Transplantation
- Often only problem
- Not futile
- Respect for life/Beneficence
- Poor resources

- No guidelines or policies exist to assist in decision making
- Different approaches in different environments
- Instituting guidelines is a nightmare because of complex nature of our society
- PD treatment is a microcosm for health benefit
- Achilles' heel is lack of resources

Ethical dilemmas

- **Autonomy/Consent:**
  - Patient should understand their clinical condition, management plan and complications that may arise
  - ? Living will
- **Beneficence/Non-maleficence:**
  - PD beneficial
  - If sepsis, should be treated and HD initiated if necessary

Distributive Justice

- **Definition:**
  - distribution of resources in a fair and equitable manner
- Different ideas of being fair
- **Include:**
  - Fair collection of funding
  - Allocation
  - Benefit

Funding

- Taxation
- Nationalisation/ Communism
- National Health Insurance
- Private Health Insurance

Allocation

- **Who:**
  - Legislation
  - Management
  - Collective decision
  - Individual
- **Process:**
  - Quantification of benefit
  - How is benefit distributed

Benefit

- **Egalitarianism:**
  - everyone treated equally. State system
- **Socialism:**
  - “from each according to his ability to each according to his need” NHI
- **Libertarianism:**
  - “from each as they chose to each as they are chosen” Medical aid

Summary

- Prevalence of HIV high and incidence of CRF may increase in future
- PD may be better than HD
- Many challenges unique to HIV and PD
- Past experiences cannot be extrapolated to the present
- Main barrier to treatment is lack of resources
- Management of resources in RSA setting is incredibly complex
- No guidelines exist currently

The Future

- Where should we be heading?
- All HIV +ve patients should receive ARVs
- CKD + HIV should have access to RRT
- PD is viable option for these patients
- If complications arise they should be treated judiciously
- Future health care planning e.g. NHI should include these issues and provisions in their planning