Factors associated with adherence levels in kidney transplant recipients

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The aim of this study

To explore the association of sociodemographic, medical and relevant psychosocial factors with different levels of adherence, assessed by the method most commonly used in the clinical environment: patient-rated and clinician-rated adherence.

Methods

Sample
- Transplantation centre in Kosice, Slovakia
- Inclusion criteria:
  - a functioning graft,
  - three months - seven years after transplantation,
  - no psychiatric disease including severe dementia and mental retardation
  - signed an informed consent form before the study
- RR: 169 (78%)
- 64.5% male; 49±11.5 years

Adherence
- Combined self and nephrologist’s evaluation
- Defined as skipping a dose or change the timing of a dose
- Rate on a scale from 1 to 5 over the past month, where
  1 - patient did not break the prescribed regimen over the past month
  2 - once over the past month
  3 - 2-3 times over the past month
  4 - once per week over the past month
  5 - the patient breaks the prescribed regimen more than 3 times a week

Sociodemographic data
- Age
- Gender
- Education
- Average income
- Marital status

Medical data
- Glomerular filtration
- Davies’ comorbidity index
- Number of late rejection episodes (over 90 days post KT)

Statistics
- Binary and ordinal logistic regressions to identify factors associated with excellent vs good/average/bad adherence
Results: Adherence levels

Patients evaluation

- Excellent (no deviation from prescribed regimen over past month)
- Good (forgot or delayed one dose over past month)
- Average (forgot or delayed 2-12 doses over past month)

Nephrologists evaluation

- Excellent (no deviation from prescribed regimen over past month)
- Good (forgot or delayed one dose over past month)
- Average (forgot or delayed 2-12 doses over past month)

Differences between the adherence groups

In comparison with the excellent adherence group

- the good/average adherence groups
  - significantly more males (p≤0.001)
  - significantly higher levels of limited physical capacity (p≤0.001)
  - significantly higher levels of KT-related psychological distress (p≤0.001)

- the good adherence group
  - significantly higher severity of limited cognitive limitation (p≤0.001)
  - significantly higher cardiac and renal dysfunction (p≤0.001)
  - significantly higher side effects of steroids (p≤0.05)

Results

Factors associated with excellent adherence

Factors associated with good/average adherence

R² = 41.4%

Nagelkerke pseudo R² = 23%

Discussion

- More likely to entirely adhere:
  - Younger
  - Female
  - Lower cognitive capacity limitation
  - With a history of late rejection
  - Higher social support

- Tendency to break the regime up to 3 times in a month
  - Male
  - Divorced/widowed
  - Lower number of late rejection episodes
  - Longer time from KT

Discussion

- Excellent adherence
  - Associated with a history of previous late rejection episodes
  - Associated with only one psychosocial factor - Social support

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