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CLINICAL FEATURES OF CHRONIC KIDNEY DISEASE IN WOMEN WITH MENOPAUSE SYNDROME

Jumanazarov Sultanboy Bakhodirovich, Jabbarov Ozimbay Otakhonovich

Department of Faculty and hospital therapy №2, nephrology and hemodyalisis, Tashkent Medical Academy, Tashkent,Uzbekistan

Abstract

Most of women with dialysis-dependent chronic kidney disease (CKD) come in stage-5 who are in the postmenopausal age group. Early menopause is reported for all CKD stages. The traditional explanation of menopause and pre-menopause is not applicable in CKD stage 5(D) because menses can resume with hormone replacement therapy or kidney transplantation methods. Treatment of vasomotor symptoms remains the primary indication for hormone replacement therapy, without any research dosing, specifically designed for populations with CKD or kidney transplantation. Similarly, the risk of cardiovascular disease and osteoporosis in menopause is well described in healthy women, but the role of menopause in accelerating the risk of transplantation of CKD/kidney remains to be explored. The lack of data and specific recommendations for the management doing the long-term effects of menopause one of the most underrated and forgotten problems of the patient in clinical nephrology. The effectiveness and side effects of commonly available therapeutic options in healthy women for clinical manifestations associated with menopause, whether hormone replacement therapy vasomotor symptoms or antiresorptive agents for osteoporosis should be checked by kidney transplant and CKD populations. Longitudinal clinical trials require the definition of menopause in CKD and determining role played by CKD in the period of menopause and menopause on the manifestations of CKD.

Keywords: menopause; chronic kidney disease; cardiovascular risk; vasomotor symptoms.

INTRODUCTION

Vasomotor symptoms (VMS) are common symptoms of menopause, occurring in 30-50% of cases of perimenopause, and 30-80% of women in postmenopausal period. While the pathogenesis of the Navy is not fully understood, the Navy is believed to be due to thermoregulatory dysfunction, leading to exaggerated activation of heat dissipation, including peripheral vasodilation and sweating.

Vasomotor symptoms were associated with higher prevalence of cardiovascular risk factors and subclinical markers of cardiovascular disease. Consequently, the Navy can help to identify women with increased cardiovascular risk. Indeed, participants in the Initiative for the protection of women's health (PWH) that was developed by the Navy after menopause (late VMS), were at increased risk of cardiovascular events and mortality, whereas women with early VMS were

lower compared to women who had never experienced the Navy. It was reported that chronic kidney disease (CKD) affects 15% of all women in the United States, but relatively little is known about the relationship between CKD and menopause.

Women with end-stage renal failure have features of accelerated aging, premature menopause, bone fractures and cardiovascular events. Women with earlier stages of CKD experience premature cardiovascular morbidity, but also may experience an excessive burden of fractures, however research menopausal characteristics across the entire spectrum of renal function do not exist. In this study, we sought to examine the Association between CKD, the symptoms of menopause (particularly VMS), mortality and cardiovascular events. We hypothesized that women with CKD will have earlier and more severe menopause symptoms. Given that late VMS (i.e., not present during menopause, but appearing later) are associated with increased cardiovascular (CV) risk, we hypothesized that the relationship between late VMS and mortality and CV events is increased in women with CKD.

Premature menopause, defined as secondary amenorrhea, is common in women with kidney disease. In addition, an aging population has led to increase in postmenopausal women with kidney disease. Although the pathophysiology is poorly understood, liver transplantation and more frequent hemodialysis may restore menstruation and fertility, highlighting the problems of diagnosis and management of menopausal transition women with kidney disease. Levels of sex hormones in postmenopausal women affect renovascular physiology, but the clinical impact of menopause on renal function is unclear. There are no recommendations on the use of postmenopausal hormone therapy among the population with kidney disease and study of the effect of postmenopausal hormone therapy in patients with kidney disease is limited to surrogate indicators of cardiovascular risk and fractures. Study examining the effect of postmenopausal hormone therapy on renal function and albuminuria, have reported conflicting results, which probably reflect differences in the composition, the route of administration, accompanying progestin and the timing of the start of treatment. Large, prospective study examining the relationship between renal function and menopause, as well as the impact of postmenopausal hormone therapy on important clinical outcomes in women with kidney disease.

The time and duration of VMS was analyzed Catharine L. Cheung et al. using categories previously identified WHI as follows:

(1) no VMS, if women reported that had never experienced VMS

(2) early VMS, if women reported VMS that started before menopause, but was not present at baseline of the study,

(3) constant VMS, if the women reported VMS, which began to menopause and was present at the initial study level,

(4) late VMS, if women reported that had VMS to menopause, but reported VMS at baseline of the study.

We also evaluated, and changed if

Table 1.
Diagnosis of CKD depending on the state of kidney function and the presence of damage markers

	Renal damage markers	
GFR,	Yes	No
≥ 90	CKD	Norm
60-89	CKD	Risk group
< 60	CKD	CKD

CKD the connection between late VMS and mortality from all causes, coronary heart disease (CHD) and cerebrovascular disease (CVD). Mortality was determined by a record of hospitalization from the time of death and the corresponding hospitalization to death, if you were in-hospital death, and also records the opening and the diagnoses of death certificates. To find out the cause of death for all participants, data were linked with national death index National center for health statistics throughout the study. Ischemic heart disease was defined as hospitalized myocardial infarction (MI), a certain quiet MI and coronary death. Myocardial infarction was defined by medical history, electrocardiogram and results of cardiac enzymes / troponin. Cerebrovascular accident was defined as rapid onset of persistent (lasting more than 24 hours) neurological deficit associated with obstruction or rupture of the brain arterial system without evidence of another cause. The events were considered officially trained judges after self-reporting through the annual (observational studies) or semiannual (clinical trials) questionnaires.

On the other hand, vasomotor symptoms (VMS) are common symptoms of menopause, occurring in 30-50% of cases of perimenopause, and 30-80% of women in post-menopausal period. While the pathogenesis of VMS is not fully understood, VMS, believed to be due to thermoregulatory dysfunction, leading to exaggerated activation of heat dissipation, including peripheral vasodilation and sweating. Vasomotor symptoms were associated with higher prevalence of cardiovascular risk factors and subclinical markers of cardiovascular disease. Therefore, VMS can help to identify women with increased cardiovascular risk. Indeed, participants in the Initiative for women's health initiatives, who developed VMS after menopause (late VMS), were at increased risk of cardiovascular events and mortality, whereas women with early VMS was lower compared to women who never experienced VMS. It was reported that chronic kidney disease (CKD) affects 15% of all women in Uzbekistan, but relatively little is known about the relationship between CKD and menopause. Women with end-stage renal failure have features of accelerated aging, premature menopause, bone fractures and cardiovascular events. 10-14 women with earlier stages of CDK experience premature cardiovascular morbidity and may also experience an excess burden of fractures, how-

ever research menopausal characteristics across the entire spectrum of renal function do not exist.

Criteria for the diagnosis of CKD:

1) Presence of any markers of kidney damage:

a) Clinical and laboratory (first of all, increased albuminuria / proteinuria, confirmed with repeated studies and persisting for at least 3 months;

b) Irreversible structural changes in the kidney, detected by radiation studies (for example, ultrasound) or morphological examination of the renal biopsy;

and/or

2) Reduction in glomerular filtration rate (GFR) to < 60 ml/min/1.73 m2, which lasts for three months or more.

Thus, the concept of CKD consists of two components: signs of kidney damage and a decrease in GFR.

It is important to emphasize that at the beginning of the development of CKD, the kidney function may remain intact for a long time, despite the presence of pronounced signs of damage. In normal or elevated GFR, as well as in patients with its initial decrease (60≤ GFR <90 ml / min / 1.73 m2), the presence of signs of kidney damage is a prerequisite for the diagnosis of CKD.

GFR more than 120 ml / min / 1.73 m2 is also considered a deviation from the norm, since in persons suffering from diabetes and obesity, it may reflect the phenomenon of hyper-filtration, that is, the glomerular disruption caused by their increased perfusion with the development of glomerular hypertension, which leads to their functional overload, damage with further hardening. However, to date, increased glomerular filtration is not included among the independent diagnostic criteria for CKD, but is considered a risk factor for its development. The presence of CKD in diabetes mellitus and obesity is indicated only if there are markers of renal damage, first of all, increased albuminuria.

The level of GFR in the range of 60-89 ml / min / 1.73 m2 in the absence of signs of renal damage is referred to as the "initial decrease in GFR", but a CKD diagnosis is not made. For persons 65 years and older, this is regarded as a variant of the age norm. Persons younger than this age are recommended to monitor kidney condition at least 1 time per year and to actively prevent CKD.

At the same time, a decrease in GFR to less than 60 ml / min / 1.73 m2, even in the complete absence of signs of kidney damage and regardless of age, not only indicates the presence of CKD, but also corresponds to its advanced stages (3-5). For example, a CKD 3A stage will be diagnosed in a patient with a GFR of 55 ml / min / 1.73 m2 with absolutely normal urine tests and an ultra-sonic picture of the kidneys.

Depending on the level of GFR, 5 stages of CKD are distinguished. Patients with stage 3 CKD are most prevalent in the population, while at the same time, this group is heterogeneous in the risk of cardiovascular complications, which increases as the GFR decreases. Therefore, it was proposed to divide the CKD stage 3 into two substages – A and B.

Principles of CKD treatment in menopause period:

- The earliest possible start is required.
- Diet and lifestyle correction are very important.
- Many targeted clinical and laboratory indicators have narrow range optimal values
- The importance of regular surveys in order to verify the effectiveness and safety therapy
- Many components of the nephroprotective strategy have increased risk of complications with reduced kidney function. Restriction of drugs with renal excretion
- Danger and, often, inevitability of polyphragmas
- Continuity and continuity of treatment (inpatient clinic, department
- Conservative Nephrology (Dialysis Center)
- The importance of active participation of the patient, self-control. Patient schools with CKD

The main goal of the nephroprotective strategy is to slow the progress or reverse development of a decrease in renal function. It is this criterion used to assess the effectiveness of the treatment of CKD in clinical studies. In practical nephrology, it is also possible to determine the effectiveness of therapy by slowing the rate of GFR decline.

CONCLUSION

Thus, women with predominantly mild CKD reported earlier menopause in accordance with other systems of the body, where diseases of aging appear early in the course of life of CKD. Women with CKD also had fewer and less persistent VMS VMS, suggesting that CKD may prevent the pathogenesis of this condition. Further studies are needed to fully characterize how CKD affects other aspects of gender-health.

References

1. Thurston RC, Sutton-Tyrrell K, Everson-Rose SA, Hess R, Matthews KA. Hot flashes and subclinical cardiovascular disease: findings from the Study of Women's Health Across the Nation Heart Study. Circulation. Sep 16; 2008 118(12):1234–1240.
2. Health NIo. State-of-Science Conference statement: management of menopause-related symptoms. Annals of internal medicine. Jun 21; 2005 142(12 Pt 1):1003–1013.
3. Gerber LM, Sievert LL, Warren K, Pickering TG, Schwartz JE. Hot flashes are associated with increased ambulatory systolic blood pressure. Menopause. Mar-Apr;2007 14(2):308–315.
4. Lambrinoudaki I, Augoulea A, Armeni E, et al. Menopausal symptoms are associated with subclinical atherosclerosis in healthy recently postmenopausal women. Climacteric: the journal of the International Menopause Society. Aug; 2012 15(4):350–357.
5. Deecher DC, Dorries K. Understanding the pathophysiology of vasomotor symptoms (hot flushes and night sweats) that occur in perimenopause, menopause, and postmenopause life stages. Archives of women's mental health. 2007; 10(6):247–257.
6. Shoji T, Emoto M, Tabata T, et al. Advanced atherosclerosis in predialysis patients with chronic renal failure. Kidney international. Jun; 2002 61(6):2187–2192.
7. Gast GC, Grobbee DE, Pop VJ, et al. Menopausal complaints are associated

with cardiovascular risk factors. Hypertension. Jun; 2008 51(6):1492–1498.
8. Allison MA, Manson JE, Aragaki A, et al. Vasomotor symptoms and coronary artery calcium in postmenopausal women. Menopause. Nov-Dec;2010 17(6):1136–1145.
9. Szmuilowicz ED, Manson JE, Rossouw JE, et al. Vasomotor symptoms and cardiovascular events in postmenopausal women. Menopause. Jun; 2011 18(6):603–610.
10. Coresh J, Selvin E, Stevens LA, et al. Prevalence of chronic kidney disease in the United States. JAMA: the journal of the American Medical Association. Nov 7; 2007 298(17):2038–2047.
11. Lim VS. Reproductive function in patients with renal insufficiency. American journal of kidney diseases: the official journal of the National Kidney Foundation. Apr; 1987 9(4):363–367.
12. Nickolas TL, Leonard MB, Shane E. Chronic kidney disease and bone fracture: a growing concern. Kidney international. Sep; 2008 74(6):721–731.