



Arterial Stiffness in the Heart Disease of CKD

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Résumé en anglais	<p>CKD frequently leads to chronic cardiac dysfunction. This complex relationship has been termed as cardiorenal syndrome type 4 or cardio-renal link. Despite numerous studies and reviews focused on the pathophysiology and therapy of this syndrome, the role of arterial stiffness has been frequently overlooked. In this regard, several pathogenic factors, including uremic toxins (, uric acid, phosphates, endothelin-1, advanced glycation end-products, and asymmetric dimethylarginine), can be involved. Their effect on the arterial wall, direct or mediated by chronic inflammation and oxidative stress, results in arterial stiffening and decreased vascular compliance. The increase in aortic stiffness results in increased cardiac workload and reduced coronary artery perfusion pressure that, in turn, may lead to microvascular cardiac ischemia. Conversely, reduced arterial stiffness has been associated with increased survival. Several approaches can be considered to reduce vascular stiffness and improve vascular function in patients with CKD. This review primarily discusses current understanding of the mechanisms concerning uremic toxins, arterial stiffening, and impaired cardiac function, and the therapeutic options to reduce arterial stiffness in patients with CKD.</p>
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Liens

- [1] <http://okina.univ-angers.fr/publications?f%5Bauthor%5D=37453>
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