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## THE TRIPLE ALLIANCE: HEART, KIDNEY, AND ARTERIAL DISEASE\*

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THE simultaneous presence of chronic heart, kidney, and arterial disease is not so uncommon in individuals above middle age. It does not make its appearance in the same characters in the different cases, but when more closely analyzed clinically or studied pathologically, we find similar earmarks of disease in each of the three organs. At times the condition of the heart, at others the finding of Bright's disease, or it may be the sudden development of cerebral conditions, calls our attention to the particular system, suffering the greatest strain, and we are apt, erroneously, to refer to that organ as the sole region of disease. These combinations of heart, kidney, and arterial disease, or any two of them, are most commonly brought to our attention when the process, from a pathological point of view, has become chronic. In no way do we face an acute lesion of an organ, but only the manifestations of a process insidiously progressive, and clinically recognizable late in its development. A correlation of the many facts bearing upon the condition which I have termed the triple alliance, is, I believe, possible.

A physiological alliance has been recognized as existing between the heart, arteries, and the kidneys. The proper function of each is, to some extent, dependent upon the healthy activities of the others. The relationship is perhaps more prominently brought out in the dependence of the function of the kidney as related to the

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