



### Current obstacles in management of hypertensive patients by performance-based care and importance of diagnostic tests.



It is widely appreciated in medicine that an essential approach must be the early prevention of chronic illnesses and the vast majority of chronic illnesses are preventable [1]. It has been clearly established that early and efficient medical management is associated with a good clinical outcome. Approximately half the decline in deaths in the United States from coronary heart disease from 1980 through 2000 may be attributable to reductions in major risk factors [2]. Effective health care of the majority of chronic patients is also a challenge for developing countries. To try to address better health care, a performance system in the last decade was established by the Turkish Health Ministry. It was considered to undercontrol all patients without health insurance for better overall standards throughout the country in practical health care.

The patients who do not have health insurance were given the free health insurance which was financed by the national budget [3]. It was planned that the insurance would cover the majority of chronic patients who need the precise medical management. Nevertheless, major problem is the absence of compulsory referral system, so all patients can visit a tertiary hospital without being referred by a primary health care [3]. This problem could lead to an overload in emergency units and outpatient clinics that could result in limited time for diagnostic procedures and could make a difficulty in identification of high risk group which is an important concern for quality health care. The national health authority has developed the performance system based on a procedure-dependent income model for physicians.

The number of private hospitals has gradually increased in the last decade and has reached from 271 in 2002 and to 550 in 2013 [4]. The potential danger is that health care by private hospitals may be seen as a profitable investment and may result in a largely financial perspective in health care rather than higher quality of health care for chronic diseases. The performance system also may produce an increase in number of procedures and may negatively effect on quality. In fact, since the health authority has started to act in 2002, the number of referred patients from primary care has decreased and operations has increased from 22%, 1.598.362 to 3%, 4.684.237 respectively in 2013 [4]. This may produce an uncomfortable work atmosphere for physicians, since more procedures mean more money.

Since quality health care for chronic patients needs a more organized system which may not be provided by performance-based system, because comprehensive diagnostic tests can take a long time. We have emphasized the importance of combined cardiac imaging with exercise testing, diagnosis of exercise hypertension and cardiovascular translational imaging that has played a significant role in decline of mortality by identification of patients at risk by accurate diagnosis [5–7]. Therefore, early diagnosis is crucial for appropriate preventive medical care, but diagnostic attempts take time. Korhonen PE. et al. [8] have clearly documented that one of five patients with previously undiagnosed hypertension is associated with subclinical target organ damage including cardiac

remodeling. Gottdiener JS. et al. [9] described that cardiac remodeling in healthy normotensive adults can be developed by exercise hypertension. We recently have pointed out that exercise hypertension should be ruled out in healthy individuals who develop exercise-induced focal cardiac remodeling [10].

Comprehensive diagnostic tests are crucial for better long-term management of chronic patients. It could be hypothetically assumed that if physicians are thinking and focusing on actual medical procedures, the intellectual side of their work is not being financially rewarded. In the integrated systems in the USA as Mayo Clinic and Cleveland Clinic, doctors are salaried to improve quality. Quality health care needs enough time for physicians in evaluation of individual data of patients and can be provided by an integrated system. Furthermore, the compulsory referral system seems obligatory for identification of high risk group with strong coordination between health care steps.

As the conclusion, performance-based health care does not seem recommendable in the 21st century, since it decreases the number of referred patients 7 fold from primary care that may produce an impracticality in early and effective treatment for the patients at high risk. Insufficient health care of high risk group ultimately will produce severely ill patients who could be managed using huge time and effort of physicians that could create an inhibitory perspective on preventive medicine in a vicious cycle. Very interestingly, Turkish authority has tried to settle a mandatory on call arrangement for primary care physicians instead of encouraging preventive approach, it fortunately blocked by social consciousness.

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