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Original Article

Multicenter HP ACS Registry

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ARTICLE INFO

Article history:
Received 2 June 2015
Accepted 14 July 2015
Available online 18 January 2016

Keywords:
Acute coronary syndrome
Registry
Outcomes

ABSTRACT

Background: No population representative data on characteristics, treatment, and outcome were available in acute coronary syndrome (ACS) patients.
Methods: The clinical characteristics, treatment, and in-hospital outcome of 5180 ACS patients registered in multicenter ACS Registry across 33 hospitals in the state since January 2012 to December 2014 are reported. ACS was diagnosed using standard criteria.
Result: 70.8% were men; mean age was 60.9 ± 12.1. NSTEMI was more frequent than STEMI (54.5% vs. 45.5%). 83.3% of the ACS population were from rural area. Pre-hospital delay was long, with a median of 780 min. 35.6% of STEMI patients received thrombolytic therapy. Evidence-based treatment was prescribed in more than 80% of ACS patients, and the treatment was similar in men and women across all types of health care centers. In-hospital mortality was 7.6%, and was more frequent in STEMI than in NSTEMI (10.8% vs. 5.0%, $p < 0.001$).
Interpretation: Pre-hospital delay was long, and use of reperfusion therapy was significantly lower. The in-hospital death rates are higher.

1. Introduction

Coronary artery disease (CAD) is a leading cause of morbidity and mortality in developed and developing countries.[1,2] Acute coronary syndrome (ACS) is a commonest mode of presentation among patients of CAD and carrying high rate of morbidity and mortality.[3] The incidence and outcomes of ACS depend upon population exposure to risk factors, access to quality health care services, and health seeking behavior of the community.[3–10] These, in turn, are influenced by socioeconomic status, access to health information, geographical characteristics, and cultural practices. Thus, the characteristics, the treatment, and outcomes are likely to vary in different parts of the country and between the countries.[3–11] The CREATE registry data are based on data

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http://dx.doi.org/10.1016/j.ihj.2015.07.027

captured by volunteered participating ACS Registry centers, which are mostly tertiary care centers catering to urban population.[12] 80% of the population in India live in rural area. The characteristics of rural and urban ACS populations are not reported in any of the ACS registries from India. The Kerala ACS Registry, one of the largest state based registries of India, has reported the characteristics, treatment, and outcomes that are different from CREATE registry.[13] The hill state of Himachal Pradesh (HP) has better literacy rate[14] and health indicators[15] than national average. The health care services in HP are delivered primarily by the health care centers in the government sector. There are only two teaching institutions in the state, and IGMC Shimla is the only tertiary care center with facilities for coronary angioplasty and CABG. The ACS patients are admitted and treated by secondary care hospitals; district hospitals, civil hospitals located at district head quarters, and at some block level, respectively. In some districts, there are private hospitals with indoor facilities, where patients of ACS are admitted and treated. The health care access to rural ACS population is limited by the long traveling time (Fig. 1). There are no population representative data available on patient's characteristics, treatment practices, and outcomes.

Thus, the multicentric ACS Registry was initiated in March 2012 through networking of two teaching hospitals in the state, all physician-manned hospitals in the government sector, and volunteered hospitals in the private sector to capture the data in predesigned format. This actual preparatory work for establishing HP ACS Registry was started since May 2011 that involved training and meeting with physicians, designing and development of web-based e-recording format.

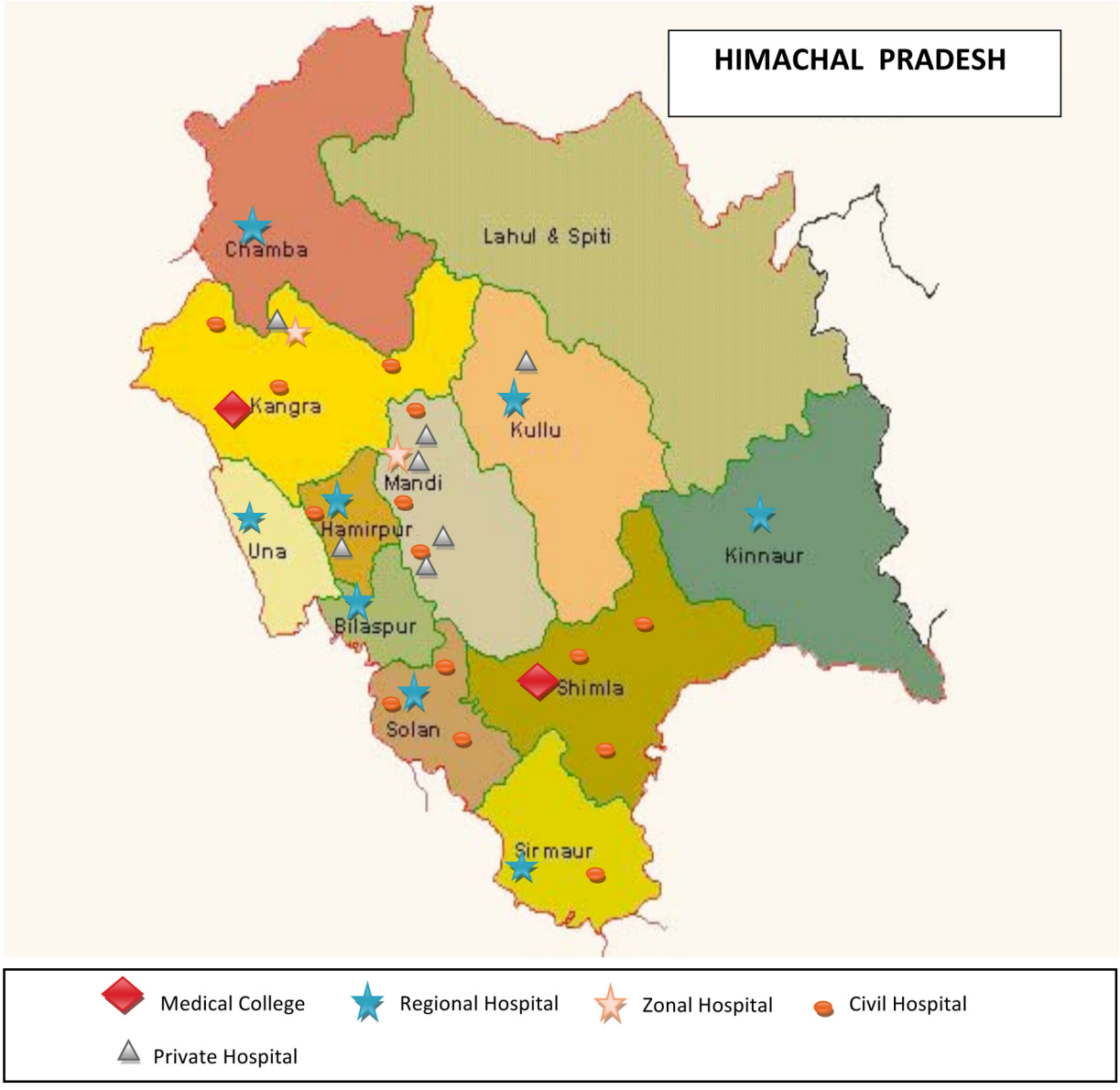

Fig. 1 – District wise distribution of different levels of ACS registry centers.