

## LETTER TO EDITOR

**INSPIRATORY MUSCLES TRAINING: AN EFFECTIVE WAY TO IMPROVE POST-OPERATIVE OUTCOMES AFTER CORONARY ARTERY BYPASS GRAFTING**Awan MMA<sup>1</sup>, Khushnood K<sup>2</sup>, Sultan N<sup>2</sup>

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Cardiovascular diseases (CVD) are the leading cause of death worldwide. It is a multifactorial disease and has many risk factors including hypertension, diabetes mellitus, physical inactivity and smoking. Coronary artery disease (CAD) is one of the consequences of CVD.<sup>1</sup> If we talk about CAD, it is a really common heart disease in our country, also known as ischemic heart disease and develops when coronary arteries or its sub-branches which are the blood supply of the heart become narrowed or blocked due to accumulation of plaque leading to an impaired supply of oxygen rich blood to the heart and thus cause retrosternal chest pain typically known as angina that is accompanied by dyspnea.<sup>2</sup>

Coronary artery bypass grafting (CABG) is generally the ideal treatment option for the individuals suffering from CAD. In this procedure, an auto-graft of vessel is taken and the commonly used vessels are left internal thoracic artery and great saphenous vein. The graft is sutured in such a way that the blocked coronary artery is bypassed and the blood supply to the heart is restored.<sup>3</sup>

Although medical sciences have advanced a lot, yet the prevalence of post-operative complications, specifically the respiratory ones pose an immediate threat to the survival and are the aiding factors to mortality and morbidity.<sup>4</sup>

Physical therapy after any surgery plays a pivotal role in improving the post-operative outcomes and helps the patient fight the effects of surgery. It makes a patient return to his or her normal life and helps in the early discharge of patients from hospitals thus preventing the chances of hospital acquired infections and reducing the financial load on masses.<sup>5</sup> Respiratory rehabilitation, which is the specialty of physical therapy, have tremendous positive effects on the pulmonary compliance and function by preventing the post-operative pulmonary atelectasis.<sup>6</sup> Moving further towards the components of respiratory rehabilitation, a group of breathing maneuvers conjointly known as inspiratory muscles training (IMT), if applied pre-operatively to the patients who are scheduled to undergo the coronary artery by-pass grafting displayed healthy post-operative outcomes.<sup>7</sup>

To conclude, it is the dire need of today to raise awareness among the health care professionals especially cardiologists and cardio-thoracic surgeons; and the general public regarding the pre-operative respiratory physical therapy for the patients planned to go through CABG. So, in the light of supported evidence, it is proved that respiratory physical therapy, particularly pre-operative IMT has positive outcomes in post-operative state.

Moreover, the authors would also like to shed light on the facts about the healthcare policies and physical therapy services in Pakistan. Contrary to public sector hospitals, the rehabilitation departments in private sector hospitals are properly managed, substantially equipped and well established, leading to enhanced quality of physical therapy practices that result in better prognosis of the patients. The health department of our country should also emphasize on the public sector hospitals to make necessary arrangements for logistics of sufficient equipment and the hiring of physical therapists that are qualified and specialized in the field of cardiopulmonary physical therapy.

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