

Cardio Care 2021: COLS by bystanders a change for society

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Background:

In India out of 4280/100,000 population, die from sudden cardiac arrest (SCA) and nearly 85% of cardiac arrests occur outside the hospital. Cardiac arrest has been recognized as a global public health concern and can occur anywhere, even outside the hospital setting. Various professional bodies provide guidelines for layperson CPR. Indian Resuscitation Council (IRC) has formulated the CPR guidelines for the layperson- Compression Only Life Support (COLS). These guidelines have been used for teaching and training across India and landmark training program was conducted during the world restart a heart day. However, the published data related to its knowledge and effectiveness of training is scarce. Low bystander cardiopulmonary resuscitation (CPR) rate is one of the factors responsible for the poor outcome for patients having cardiac arrest outside the hospital.

Aim:

This study aims to assess the knowledge and effectiveness of Compression-Only Life Support (COLS) training among layperson as per Indian Resuscitation Council (IRC) guidelines.

Methodology:

A prospective study was conducted on 100 laypersons residing in a residential campus of a tertiary care hospital in North India, from June to November 2019. Participants were enrolled using convenient sampling. Data was collected using a structured validated questionnaire, followed by COLS training by interactive lecture, demonstration and hands-on practice by participants. Training sessions were organized on weekends in both morning and evening sessions at an open spacious hall in the vicinity of residential campus from the first weekend of September 2019 to November 2019. In the post-test, knowledge and COLS skill was assessed. Data were analyzed using frequency, percentage, and paired t-test. A p-value

Results:

The mean age of the participants was 33±10.7 years and 64 were females. Significant difference was observed in the mean knowledge score of before (2.7±1.51) and after the training (13.88±1.09) (P=0.001). After the training, 96 participants had good COLS knowledge and a median (IQR) score of COLS skill was 40 (0). Eighty participants attained 100% competence in performing COLS in the first attempt. These participants were unable to maintain the depth of compressions to 5-6cm, maintain a compression rate of 120 compressions per minute, allow complete chest recoil, maintain minimum interruptions during chest compressions and did not explain the age of the victim. And all achieved competency after three attempts.

Conclusion:

COLS training are effective in increasing knowledge and developing competence regarding CPR among laypersons. It is a simple algorithmic approach and easy to learn for a layperson

Foot Note: This work is partly presented at Joint Event on 29th International conference on Cardiology and Cardiovascular Diseases & 36th World Cardiology Conference, September 27, 2021 as Webinar