

バイスタンダーによるCPRは生存率向上および神経学的転帰が良好であることと関連がある(Abstract 1189-355)

HeartRescue: バイスタンダーによるCPRおよび除細動は院外心停止後の予後を改善する
HeartRescue: Bystander CPR and defibrillation improves outcomes following out-of-hospital cardiac arrest

院外心停止患者に対するバイスタンダーによる心肺蘇生(CPR)およびファーストレスポnderによる除細動は、生存率向上および神経学的転帰が良好であることと関連がある、と第65回 American College of Cardiology 年次集会で発表された。2010~2014年の間に、バイスタンダーによるCPRを施行された患者の割合は自宅および公共の場において有意に増加した一方で、ファーストレスポnderによる除細動は自宅では増加したが公共の場では増加しなかった。退院時生存率は公共の場における心停止群において10.8%から16.8%に上昇し、自宅における心停止群では5.7%から8.1%に上昇した。神経学的転帰は自宅では改善の傾向がみられ(4.9%から6.1%; $p=0.06$)、公共の場においては有意に改善した(9.5%から14.7%; $p=0.02$)。

Full Text

Initiatives to improve bystander cardiopulmonary resuscitation (CPR) and first-responder defibrillation may be associated with improved survival and reduced brain injury in people with out-of-hospital cardiac arrest, according to research presented at ACC.16.

Christopher B. Fordyce, M.D., and colleagues at the Duke Clinical Research Institute analyzed 8,269 cases of cardiac arrest between 2010 and 2014 collected from the North Carolina Cardiac Arrest Registry to Enhance Survival. The statewide program, part of the HeartRescue Project, trained family members and bystanders to recognize the signs of sudden cardiac arrest, quickly call emergency responders, and use CPR or automated external defibrillators (AEDs). The study is the first to separately track the effects of such interventions on cardiac arrests in public places and private homes.

Results showed that the proportion of patients receiving bystander CPR increased at home from 28.3 percent to 41.3 percent ($p<0.0001$) and in public locations from 61.0 percent to 70.6 percent ($p=0.007$), while first-responder defibrillation increased at home from 42.2 percent to 50.8 percent ($p=0.01$) but stayed mostly the same in public locations (33.1 percent to 37.8 percent; $p=0.16$). There was not a statistically significant increase in non-EMS first-responder AED use in public places, which the authors attribute to timely defibrillation by EMS. The rate at which cardiac arrest patients survived until their discharge from the hospital rose from 10.8 to 16.8 percent for public cardiac arrests and from 5.7 to 8.1 percent for cardiac arrests in the home. The rate at which patients only suffered minor losses in brain function or regained it fully increased from 4.9 to 6.1 percent at home and from 9.5 to 14.7 percent in public.

The authors explain that these results are encouraging, but due to the low absolute survival rates, there is still room for improvement. They suggest that future research in this area include interventions such as deploying AEDs into more private homes when cardiac arrests occur and using mobile technology to notify nearby citizens trained in CPR who can initiate care quickly.

"Survival is notoriously worse in private homes, where the majority of cardiac arrests occur," says Fordyce. "Little is known about whether broader efforts to teach people to recognize cardiac arrest and act quickly also impact home cardiac arrests, where the bystander is typically a family member. What's interesting about this study is it's the first time a statewide intervention has improved both public and residential cardiac arrest outcomes," he adds.

ACC2016特集

[News01]
脳画像が扁桃体の活性と心臓発作のリスクを関連付ける

[News02]
心疾患患者においてうつ病は予後不良と関連している

[News03]
心疾患疑いの症状は男女で差がない

[News04]
午睡はメタボリック症候群のリスクを上昇させる

[News05]
バイスタンダーによるCPRは生存率向上および神経学的転帰が良好であることと関連がある

[News06]
マンモグラムは心疾患の新たなスクリーニング法となり得る

[News07]
スタチンの広範な使用がスタディにより支持された

[News08]
中等度リスクの患者においてTAVRは手術に代わる妥当な代替療法である

[News09]
PCSK9阻害薬はスタチン不耐性患者のコレステロール値を低下させる

[News10]
心臓検査における性差

[News11]
Evacetrapibトライアルは早期中断された

[News12]
肥満手術の血糖値に対する効果は時間が経過しても持続する

[News13]
幹細胞治療は心不全の転帰を改善する

[News14]
院外心停止に対する抗不整脈薬投与が疑問視される

[News15]
ステント留置を遅らせても臨床的有益性は示さなかった

[News16]
心筋梗塞後のlosmapimod投与により改善は認めなかった

[News17]
クライオアブレーションは高周波アブレーションに匹敵する

[News18]
CABGは心不全患者の寿命を延長させる