

Preventing cardiovascular, diabetes, and cancer (cdc) strips



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Novel Strategies Halt Cardiovascular, Diabetes, and Cancer Strips

Summary

Since the authors found firstly there are cardiovascular disease, diabetes and cancers (CDC) strips and disclosed their mechanisms, classifications and clinical significances, there is an arising problem how to prevent and halt CDC strips. Fortunately, the authors had already developed new strategies which based previous works for the prevention of coronary heart disease (CVD), cardiovascular events (CVEs) and healthcare, etc. These novel strategies, which including sleep, emotion, exercise and diet intervention (SEEDi), E (e)nvironment + SEED intervention [E (e)SEEDi] and even Hu's healthy lifestyles[E (e)SEED-BasED ones] intervention (HHLi), also called "Chinese vaccine" or "hero for human health (H. H. H)", as the core elements of "Grade 210 prevention", play an important role in the prevention and management of human chronic non-communicable disease (NCD) when combined with RT-ABCDEF strategy, for example, obesity-OSA-hypertension (OOH) syndrome, C-type hypertension (CtH) and sudden cardiac death (SCD), and especially in halting CDC strips the authors discovered.

Keywords: cardiovascular disease, diabetes, cancer, prevention, healthy lifestyles

Since the authors found firstly there are cardiovascular disease (CVD), diabetes and cancers strips and named them CDC strips, and disclosed further their mechanisms, classifications and clinical significances, ¹ there is an arising problem how to prevent and halt CDC strips. In this article, with several conceptual and technical breakthrough, the authors will introduce <https://assignbuster.com/preventing-cardiovascular-diabetes-and-cancer-cdc-strips/>

several novel strategies which were developed based on previous work for effectively preventing and halting CDC strips. ²⁻⁶

The authors have already developed new strategies in previous works for the prevention of coronary heart disease (CHD), cardiovascular events (CVEs) and healthcare (<http://www.chinagene.cn/CN/news/news370.shtml>). ³

These novel strategies, which based on sleep, emotion, exercise and diet (SEED) intervention, was also called “ Chinese vaccine” or “ hero for human health (H. H. H)”. As the core elements of “ Grade 210 prevention”, they play an important role in the prevention and management of human non-infectious chronic disease (NCD) when combined with RT-ABCDEF strategy, ⁵ for example, sudden cardiac death (SCD) and obesity-OSA-hypertension (OOH) syndrome Dr. Chun-Song Hu and Prof. Da-Yi Hu discovered and first named, ⁷ especially in halting CDC strips.

1. Introduction of Novel strategies

Since healthy “ SEED” rulers were developed in 2005 according to great clinical experiences, authors conducted positively these novel strategies in clinical for primary and secondary preventions of CVD, CVEs and healthcare, and cited the related article, ^{2, 3, 6} then developed further into “ E (e)SEED” due to the important role of environment. Together with Prof. Sheng-Shou Hu, these new strategies were still developed into more novel “ E (e)SEED-BasED” healthy lifestyles by innovated idea, and named “ Hu’s healthy lifestyles (HHL)” in 2009. The key tips of these strategies for NCDs, especially CDC strips are showed as follows (Table 1).

2. Novel strategies for the early evaluation of RFs

CVD is the number one killer and a leading cause of death in the world.

There was 17.5 million death cases every year, which bring a big burden and great challenge for public health. Moreover, it plays a key role in the development of CDC strips. Single gene defects, target diseases have now come to include multi-genetic and multi-factorial diseases, such as CVD, neurodegenerative diseases such as Parkinson's disease, T2DM or T1DM, and human cancer, especially CDC strips. Therefore, to screen and evaluate early CV status is very important to the prediction and prevention of CVEs and CDC strips. Both previous experimental and clinical studies confirmed the role of single factor in the development of human disease. However, little is known about multi-factors' role (more than 5 to 10, even 20 or more).

The authors developed Chinese E (e)SEED-BasED score (CEBS) according to "E (e)SEED-BasED" healthy lifestyle. These healthy elements and related RFs play a very important role in human health. That is to say, if people intervene early with these RFs, they can keep effectively from CDC strips.

As showed in last table, the authors have already developed these new strategies for better healthcare. In Round 3 application of GCE project (<http://www.grandchallenges.org>), authors further developed a novel strategy that was based on a Q&A list and CEBS (Table 2). According to CEBS, people can determine CDC strips hazard levels from low, moderate to high, thus, adopt effective measures including follow-up, and intervention with SEED, E (e)SEED or HHL, these are SEEDi, E (e)SEEDi, or HHLi. The

authors believe CEBS will be better for the early evaluation of NCDs, especially CDC strips based on previous work and this creative idea.

Here, the authors may compare easily with other scores, such as QRISK– a new CVD risk score for the United Kingdom,⁸⁻¹¹ Framingham CVD algorithm (FA) and Scottish score (ASSIGN) (Table 2). These scores focus on standard, common, classic, multiple modifiable or non-modifiable (eg. positive family history) RFs, but the authors think that CEBS is advantaged, validated, global with 15 classifications of core RFs.

3. RT-ABCDEF strategy and Grade 210 prevention for NCDs or CDC strips

RT-ABCDEF strategy developed in previous work is very suitable for the management and prevention of human disease,⁵ especially NCDs or CDC strips. The key tips as follows (Table 3):

As we all known, early prevention is the best choice of treatment. Efforts to achieve the ambitious goals of *Healthy China or World 2020* require new synthetic strategies for delivering healthy policy, primary and secondary prevention. Here the authors named it “ Grade 210 prevention”. Due to HHL containing preventive and care strategies for these core RFs, it’s core elements of “ Grade 210 prevention”. Therefore, it’s worthy of conducting and application in the global nations, not just healthcare providers and medical organizations. Of course, collaborative efforts among governments, private healthcare providers, insurers, policymakers, nonprofit organizations, and the global public are necessary for “ Grade 210 prevention”. Generally

speaking, it's a synthetic core strategy of healthcare for everyone or anyone and from birth to death.

4. SEEDi, E (e)SEEDi or HHLi for CDC strips

Most of patients with NCDs, including chronic heart failure (CHF), particularly those with more severe HF, and T2DM or T1DM, need the option of palliative care as assessed by symptom burden, depression, and spiritual well-being just as advanced cancer patients do. ¹² That is to say, palliative care is effective on most of CDC strips.

The development of CDC strips results from the shared many RFs related to lifestyles according to the authors' "Bad SEED" +/- "bad soil" Theory or Doctrine. ¹ Thus, it needs synthetic strategies to prevent and control the development of CDC strips. Therapeutic lifestyles interventions, such as SEEDi, E (e)SEEDi or HHLi, which based on E (e)SEED-BasED lifestyles, eg. HHLi related rational drug interventions (Table 4), can significantly improve nutrition and physical activity behavior and can reduce many of the RFs associated with common NCDs, especially CDC strips. The authors think that it was very useful and effective to most of CDC strips in the global.

Therefore, people may call it "Chinese vaccine" or "hero for human health (H. H. H)". It may help reducing in morbidity and mortality of CDC strips.

For example, among 74, 607 men and women, aged 60 or more, without CHD, stroke, or cancer at enrolment, the Mediterranean diet, modified so as to apply across Europe, was associated with increased survival among older people and is associated with longer life expectancy among elderly

Europeans.¹³ These results also help explain the role of SEEDi, E (e)SEEDi or HHLi. “ Rainbow diet” we conducted in HHL is also very helpful due to balanced nutrition. For example, coffee consumption was verified to be helpful in the prevention of NCDs,¹⁴ including CDC strips. Besides, green tea and grape are also useful foods as interventional choice of diets, because increasing consumption of vegetables and fruits may elevate the levels of anti-oxidative components.¹⁵ According to updated study in Nature,¹⁶ diet is the main factor which linked with gut microbial ecology and health because unbalanced dietary nutrients can cause intestinal inflammation, and induce human aged. Another clinical trial showed that both walking and vigorous exercise are associated with substantial reductions in the incidence of cardiovascular events among postmenopausal women.¹⁷ Yuga, Chinese Taiji and Qigong are also useful physical activity for the prevention of CDC strips.

As a part of HHLi, rational drug choice also plays an important role in initiation, progression, treatment and prevention of NCDs, especially in effectively halting the development of CDC strips. These drugs include aspirin (ASA),^{18, 19} ACEI/ARB, CCB, cannabidiol (CBD)²⁰ and coenzyme Q-10,²¹ as well as others.

Several animal experiments and clinical trials showed, as chemo protective agents, statins (pravastatin, rosuvastatin) did not only prevent and decrease CHD and CVEs,^{22, 23} and not indicate an increase in over all cancer risk (simvastatin, pravastatin),^{24, 25} but also be protective against the

development of DM and various cancers (lung cancer, ²⁶ pancreatic cancer, ²⁷ RCC, ²⁸ colon cancer ²⁹), and PCOS (atorvastatin) (Table 4). ³⁰ That is to say, statins may help preventing and halting CDC strips.

Glutathione (GSH) plays important roles in antioxidant defense, nutrient metabolism, and regulation of cellular events, and its deficiency contributes to oxidative stress, aging and the pathogenesis of many diseases, ³¹ of course, including NCDs, especially CDC strips. Thus, the authors think that GSH is an effective cytoprotective chemo agent for treating NCD, ^{32, 33} such as CDC strips (Table 4).

As essential and critical trace elements and antioxidants, studies have indicated that selenium and zinc may play a role in the pathogenesis of atherosclerosis and be useful for secondary prevention of CHD. ³⁴⁻³⁶ However, their deficiency associated with numerous diseases including CVD, DM, and cancer. ^{37, 38} Hence, these antioxidants may be useful as therapeutic agents for CDC strips. Besides, Vit D and n-3 fatty acids, ³⁹ and Traditional Chinese medicine (TCM), ⁴⁰⁻⁴⁵ eg. Ginseng, Barbary Wolfberry fruit, Cordyceps militaris, Ganoderma lucidum, SR10 and Astragalus are also very helpful in the preventive of CDC strips (Table 4).

Of course, when people dedicated to reducing morbidity and mortality from CDC strips, enhanced collaboration is critical because CDC strips share many RFs and opportunities for prevention, eg, by assessing and regularly updating an individual's family history. As to a positive history of family, eg, patients with CHD and T2DM or cancer, just like successful gene therapies,

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^{46, 47} RNAi or knockout technology is a new choice when all strategies are no use, but need to evaluate its early and late effects as our trials. ^{48, 49} At the same time, it still need to make sure the protection of some genes, ⁵⁰⁻⁵² not just medical hypotheses. Moreover, it's necessary to identifies susceptibility loci when began RNAi or knockout technology. ^{53, 54} An updated research showed that an intensive lifestyle intervention focusing on weight loss did not reduce the rate of CVEs in overweight or obese adults with T2DM. ⁵⁵ This confirmed that it needs comprehensive strategies, just like SEEDi, E (e)SEEDi, or HHLi, for CVD, T2DM, cancers, of course, including CDC strips, not just focusing on weight loss. Some times, it even needs RNAi.

One of the authors' goals is to stimulate substantial improvements in Grade 210 prevention, and early detection through collaboration between key organizations, greater public awareness about HHL, legislative action that results in funding and staff for and access to China Center of Research and Development for Hu's Healthy Lifestyles (CCRDHHL, a preparatory organization we expect and an effective platform for prevention, early detection, and treatment of NCDs, especially CDC strips, <http://blog.sciencenet.cn/home.php?mod=space&uid=71966&do=blog&id=491168>) programs and research, and emphasis of a series of new concepts authors conducted, and meets the need for curriculum-based health education regarding " the Grade 210 prevention" and motivation of people to incorporate HHL practices into their daily lives.

5. Clinical practice in CDC strips

OOH syndrome the authors found and first named in 2006 is one of classic NCD and a synthetic killer which including 3 independent risk factors and characterized by “ a shaped and sounded killer at night, but a shaped and no sounded killer at day”. According to the authors’ preliminary clinical data (manuscript not published yet), it’s high risk to occur T2DM, CHF and various acute CVEs, even cancers, eg. prostate cancer in men and breast cancer in women. That is to say, it’s a status of pre-CDC strips, or already met a branch (Type A) of CDC strips.

Recently, the authors found that a group of patients with hypertension which related to “ new type stress” due to bad lifestyles, and named it for “ C-type Hypertension (CtH)”. Its main clinical features are on that there is temporary absolutely increase or continuously slowly increase levels of human cortisol, a biomarker of CtH, and it often appears among young or middle aged subjects and is a new ignored killer due to easy to suffer from AMI, CHF, Stroke or SCD. Thus, CtH results from bad “ SEED”- bad lifestyle, not bad “ Soil”—genetic factors. Some patients with hypertension among OOH syndrome may diagnose as CtH because here obesity resulted from bad lifestyles. OOH syndrome and CtH are easy to develop to CDC strips if there are long-term lasting co-RFs which would lead to T2DM and cancers.

SCD as an acute CVE, often occurs in patients with CHD, younger or older, especially in patients with OOH syndrome, CtH or CDC strips (Type A or B). And SCD often occurs as the endpoint event of CDC strips. Because both OOH syndrome or CtH and various SCD have the common RFs, that is to say, “ Bad SEED” +/- “ bad soil”, therefore, SEEDi, E (e)SEEDi, or HHLi is a good

choice for halting the development of CDC strips in OOH syndrome or CtH and for removing RFs induced SCD.

All in all, OOH syndrome, CtH, CDC strips, and SCD are highly linked, they need urgently SEEDi, E (e)SEEDi, or HHLi to enhance quality of life (QOL) and life expectancy, and the earlier, the better. Maybe people can call this “ OCS status” (OOH-CDCs-SCD). Update, the authors developed general formula for management of human disease, especially NCDs, which including OOH syndrome and CDC Strips as follows: General Formula = $3 \times RT-ABCDEF + E(e)SEED-BasED + 210$. As to detailed explanation of this formula, people may easy to know from above.