Winners of the 2022 honor awards for excellence at the annual meeting of the Chinese Medical Association-Taipei: Part II

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The present editorial is a "Part II" after "Part I" outstanding research works,[1–3] which announced another three 2022 Excellent Research Paper Awards of the *Journal of the Chinese Medical Association (JCMA)* at the *Chinese Medical Association-Taipei* Annual Meeting (CMA-Taipei) on July 8 and July 9, 2023, held at Taipei, Taiwan. We are happy to introduce three winners with their great achievement on promotion of professional and scientific advances in taking care of patients and increasing better understanding in medicine.[4–6]

First, Dr. Huang and colleagues[4] have long-term studied the pathophysiology, prevention and treatment in liver cirrhosis, which is a major cause of disability and mortality in Taiwan, resulting in a biggest health issue and heavy economic social burden.[7–9] Liver cirrhosis, characterized by liver fibrosis and pathological angiogenesis, is considered end stage of liver disease, transcending various progressive stages from compensation to decompensation driven by the severity of portal hypertension and subsequent association with cardinal and hemodynamic complication, such as development of ascites, variceal hemorrhage, and hepatic encephalopathy, hepatorenal syndrome and cirrhotic cardiomyopathy and finally resulting in death.[10] Slowing down the progression of severity of portal hypertension may be one of the most critical steps to delay or reverse the cirrhosis-related complications, which can be mediated by blocking an abnormal and hyperdynamic circulation of liver cirrhosis. Dr. Huang et al[4] used the bile duct ligation (BDL)-induced biliary cirrhotic rat model to investigate the effect of lycopene on ameliorating the severity of BDL-induced cirrhosis and pathological angiogenesis. The results were impressive and exciting, including alleviating hyperdynamic circulation such as decreased cardiac index and increased peripheral vascular resistance, as well as diminishing the shunting degree of portal-system collaterals and mesenteric vascular density, and of most importance, ameliorating intrahepatic angiogenesis and severity of liver fibrosis.[4] The authors further investigated the associated underlying mechanisms of lycopene on the positive impact on protecting disease progression of liver cirrhosis, and found that lycopene can upregulated endothelial nitric oxide synthase, protein kinase B (Akt) and phosphatidylinositol 3-kinases (PI3K) and downregulated vascular endothelial growth factor receptor 2 (VEGFR-2) protein expression in BDL-induced liver cirrhosis rats.[4] The present study highlighted the therapeutic benefits of lycopene on BDL-induced liver cirrhosis, but the underlying potential effects of lycopene should be reviewed extensively, particular for its antioxidant and non-oxidative effects.[11]

Lycopene, a fat-soluble red-colored carotenoid, can stimulate detoxifying/antioxidant enzyme production, including superoxide dismutase (SOD), catalase (CAT), glutathione-S-transferase (GST), and glutathione reductase to quench reactive of reactive oxygen species, reduce oxidative stress, and avoid the detrimental effect of the cell components (lipid, protein, and DNA).[11] Lycopene also inhibits cell proliferation, suppresses abnormal regulation of signal transduction, upregulates the impaired gap junctional communication in cells, and modulates abnormal production growth factors.[11] All the above-mentioned effects of lycopene can cease the development of cancer or abnormal repair process, interrupt the circulated vicious cycles, and ameliorate the inflammatory process. Therefore, it is easily expected that the effect of lycopene is positive in the present study by Huang et al,[4] because BDL-induced liver cirrhosis is a chronic inflammatory disease manifested by oxidative stress situation and abnormal angiogenesis process. Although many advantages of lycopene are present, the big gap between bench work to clinical practice is existed. Similar to all other antioxidant natural sources (food or nutrition), it is hard to identify how much lycopene the subjects should be taken to reach the therapeutic or optimal level. Additionally, therapeutic window (ratio of effective dose/toxicity dose) is unknown, contributing to the uncertainty of the safety of lycopene. Furthermore, the dose-dependent effect is also unknown. No study to investigate the optimal dose of lycopene has been found in the literature review. Conventionally, a larger dose is often associated with a more effectiveness. However, all of the aforementioned basic pharmacodynamics and pharmacokinetics are absent for lycopene,

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contributing to doubt in clinical routine practice for various kinds of diseases, including liver cirrhosis.

Second, another winner for rheumatology research award was given to Dr. Wang et al[5] who attempted to evaluate the real-word effectiveness and safety of golimumab (GLM) for the treatment of Taiwanese population with diagnosed rheumatoid arthritis (RA). RA is a chronic and progressive autoimmune disease (AD) characterized by synovial membrane inflammation and hyperplasia, production of autoantibodies, cartilage and bone destruction and many other systemic pictures, resulting in the disability of suffered subjects and impairment of quality of life (QoL) and becoming a heavy socioeconomic burden in the world.[12,13] In term of safety profile, the authors found 22 patients (20.4%) developed adverse events (AEs), suggesting more than three-quarters of patients tolerated well for GLM therapy.[5] In term of effectiveness, the authors announced that nearly 60% of patients achieved a good European League Against Rheumatism (EULAR) response with a significant decrease of the mean Disease Activity Score (DAS) using 28 joint counts with the erythrocyte sedimentation rate (DAS28-ESR) from 6.7 to 3.1; however, 13.9% of patients did not take any advantage after GLM therapy, because no response to GLM and continuous disease progression were found in these patients.[5] Additionally, the authors tried to identify those who will take a better advantage of GLM therapy and found the initial high disease activity (high severity) may be one of the most critical determined factors associated with therapeutic failure, contributing to either poor EULAR responses or discontinuation of GLM therapy. We noted that many data provided by authors not consistent. Additionally, the authors did not offer all evaluated biomarkers or investigation tools to RA in their study, which include C reactive protein (CRP), erythrocyte sedimentation rate (ESR), rheumatoid factor (RF), evaluation of swollen joints count (SJC), tender joints count (TJC), visual analogue scale (VAS), disease activity score (DAS), health assessment questionnaire (HAQ), EULAR, morning stiffness (MS), and combination of more than one, such as DAS28-ESR. The aforementioned biomarkers and tools have been considered effectively to monitor the disease activity.[13] As shown by many other studies,[12,13] the evaluated items by authors seemed to be varied greatly and many of them are not consistent.[5]

Although some conflicted data were noted in the study,[5] we still highlighted the value of their report. In fact, there is no doubt that QoL of patients after treatment may be one of the most important therapeutic goals for both health providers and patients, even though the "cure" of the diseases are always our targets or dreams in facing diseased subjects. For treating many chronic diseases, as shown everywhere,[4,5,7,9,12–14] it is difficult to offer a better and longer disease control and additionally, for the aforementioned chronic diseases, it is nearly impossible to "cure" these diseases so far.

Third, the 2022 top-cited article-potential therapeutic agents against coronavirus disease 2019 (COVID-19): What we know so far, which has been published in the 2020 issue of the *JCMA*.[6] The severe acute respiratory syndrome coronavirus 2 (SARS-CoV2) inducing the pandemic of COVID-19 worldwide is a nightmare, resulting in a significant injury to global public health and loss to social economies.[6,15] In this top-cited review article, the authors have extensively introduced the recently developed agents in the management of COVID-19 patients, including lopinavir/ritonavir, remdesivir, favipiravir, chloroquine, hydroxychloroquine, interferon, ribavirin, tocilizumab, and sarilumab.[6] The well summarizing the current evidence to treatment or prevent human coronavirus infection of this article may accelerate a more advance in the medicine to face this unexpected infectious disease, which may provide a future chance to overcome the infectious disease-related pandemic attacks.

We congratulated the two winners who are recognized an Excellent Research Paper Award of the *Chinese Medical Association-Taipei* for hepatology and rheumatology field, respectively again,[1] and also congratulated Dr. Lu for their excellent work to offer a best reference for COVID-19 prevention and therapy. We appreciate their efforts to promoting the global health in world.[2]

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