Western Medicine Clinicians as Pioneers in Integrative Medicine

Dr Vivian TAAM WONG, JP

Hon. Professor, Li Ka Shing Faculty of Medicine, The University of Hong Kong



Dr Vivian TAAM WONG, JF

Integrative Medicine (IM) in the Hospital Authority (HA) was launched by HKAIM's former Presidents, Drs WM Ko & Vivian Wong. In 2003, when HK was hit by SARS, they facilitated the invitation of Prof Lin Lin & Prof Yang Zhimin from Guangdong Provincial Hospital of Chinese Medicine (CM) to treat patients in HA hospitals, starting with the Intensive Care Unit. Prof PC Leung also used CM for the prevention of SARS. The results were published in international peerreviewed journals^{1,2}. Dr PK Hui and the HA SARS Collaborative Group recorded our experience in the treatment and rehabilitation of pulmonary fibrosis. Prof Derrick Au discussed the "Role of CM in Treating SARS Patients: Evidence in Context" in a chapter in the book "Challenges of SARS", coedited by Drs Jane Chan & Vivian Wong, published by Saunders Elsevier in 2006³.

To address the key concerns of our western medicine (WM) colleagues, we made sure that CM was vetted by the same Research Ethics Committee as WM. A Toxicology Reference Laboratory was established at Princess Margaret Hospital under the leadership of Drs Albert Chan and Tony Mak, to explore potential herbal toxicity. The HA Chief Pharmacist's Office was responsible for vetting procurement and testing of herbal products. A Drug-Herb Interaction Database was created and made available to all HA staff as well as those on Private Public Partnership (PPP)⁴. Dr ML Tse has been updating and enhancing its functions⁵. A special website 中醫動 was launched for public education, professional training and research sharing⁶.

The Government initially funded 18 district-based CM clinics which were upgraded to the present CM Clinics cum Teaching & Research Centres (CMCTR). The CMCTRs next to the major HA Cancer Centres were staffed by CM oncologists who were given access to the HA Clinical Management System (CMS) via the PPP Programme. Dr Tung Yuk chaired the Committee. A pilot IM primary healthcare (PHC) clinic was started at Queen Elizabeth Hospital with the co-operation of Kowloon Central Cluster Family Medicine consultant Dr David Chao and the School of Chinese Medicine (SCM) of HKBU.

Courses in CM have been run annually for doctors, nurses and allied health colleagues to facilitate better dialogue in the clinical setting. CM graduates from our 3 Universities were recruited to a 3-year CM training programme based in the CMCTRs, with structured preservice & in-service courses in WM clinical practice and continued CM clinical training during the three years. Those with high potential were given scholarships for training at the best centres in China where IM is practised. The plan was to develop CM specialist-training through the acquisition of advanced WM and CM knowledge in parallel. In the field of Psychiatry for Family Medicine, Prof Lam Tai-pong of HKU organised courses for CM trainees in collaboration with Dr Yip Ka-chee of Kowloon Hospital.

In Tung Wah Hospital, Dr Yuen Wai-ki ran a liver cancer ward with the CM team, holding regular grand rounds for students and trainees. Drs Lo Wai-kei and Lui Singleung ran IM renal clinics. Dr Leonard Lee worked on stroke rehabilitation with the CM experts. Ms Kathy Lee, the General Manager (Nursing), was a qualified CMP. She designed IM nursing charts that were approved by the HA Central Nursing Committee for use in all hospitals. The "protocol driven" IM practice was well established in Kwong Wah Hospital where Drs Andrew Yip & MH Chan facilitated such in Departments of Medicine, Surgery, O & T and O & G. Dr Hung Kwan-ngai, the neurosurgeon in Queen Mary Hospital, sent post-operative patients to the MacLehose Medical Rehabilitation Centre for IM rehabilitation, which included acupuncture treatment by HKU professors.

EVIDENCE-BASED INTEGRATIVE MEDICINE (EBIM) DRIVEN BY CLINICIANS

The CMCTRs, collaborating with the SCM from HKU, CUHK & HKBU, were used as hubs for development of EBIM. Based on systematic review of publications and/ or expert opinion, more than 20 integrative medicine protocols were developed and piloted in different clusters under HA. The Chinese Medicine Department of HA funded the reviews resulting in 23 publications in peer review journals⁷⁻²⁹. Through the HA Central Coordination Committees, the cross-referral mechanism and the clinical documentation within hospitals were endorsed.

Research studies were prioritised for the major disease burdens in which existing regimens do not produce satisfactory results, but CM has some scientific evidence of possible advantage. HA funded projects such as pharmacology of herbal medicine to treat influenza viral infection by CUHK³⁰⁻³³, use of computer imaging for tongue diagnosis by Poly U, and management of obesity by HKBU³⁴. Dr Roger Ng of Kowloon Hospital steered the study on post-stroke depression^{35,36}, and Prof KF Chung of HKU lead the post-partum depression study. The latter was greatly supported by Dr KY Leung of Queen Elizabeth Hospital³⁷.



Medical Bulletin

At CUHK, Prof PC Leung pioneered studies on the diabetic foot³⁸, Prof Thomas Chan on herbal pharmacology and Prof Julian Chan on obesity⁷. Prof Joseph Sung & Prof Justin Wu initiated work on Irritable Bowel Syndrome, expanding to Crohn's Disease and Ulcerative Colitis, receiving recurrent grants from NIH, USA. CM diagnostics in 望聞問切 were also explored. The HK Institute of Integrative Medicine and the Institute of CM, CUHK, were both started by these western medicine (WM) clinicians. The Li Dak Sum Yip Yio Chin R & D Centre for Chinese Medicine, and the State Key Laboratory for Research on Bioactivities and Clinical Applcations of Medicineal Plants under Prof PC Shaw, Prof PC Leung & Prof Clara Lau are steered by western bio-pharmacological theory and practice.

At HKU, a Molecular Chinese Medicine Laboratory was run by the paediatricians, the late Prof Alan Lau, Prof YL Lau and Prof Godfrey Chan, in turn. Prof Cindy Lam of Family Medicine did collaborative work with Guangdong and Taiwan on the Body Constitutions (體 質)³⁹⁻⁴⁰. Prof Virginia Wong researched acupuncture for cerebral palsy at the Duchess of Kent Children's Hospital. Prof Raymond Cheung used CT scan of the brain to document acupuncture stimulation effects in post stroke patients. Prof KF Chung conducted a number of projects in depression and insomnia^{16-18,29,36,37}. Prof PC Ho studied the use of acupuncture for In Vitro Fertilisation. The Vivian Taam Wong Endowed Professorship in Integrative Medicine was established. Prof MF Yuen is now engaged in a multi-centre trial of herbal formula YIV-906, approved by US FDA for phase 3 trial, used in conjunction with chemotherapy for late stage liver cancer.

RESEARCH & EDUCATION IN IM PIONEERED BY HKAIM

In 2013-15, HKAIM was funded by the Professional Services Development Assistance Scheme (PSDAS), to organise Primary Healthcare Courses in WM for CM practitioners (CMP) in private practice. It covered common conditions in the community, prevention, rehabilitation, diagnostics, geriatrics, paediatrics, gynaecology and psychiatry. When the funding ended, we were in the position to organise more indepth training, with broader perspectives, enabling the interaction of WM and CMPs.

Diabetes affects 9% of the population, with limited therapeutic options from WM for prevention and treatment of the associated kidney disease. HKAIM obtained funding from Fu Tak Iam (FTI) Foundation in 2014-16 to start a service-research programme with the 3 SCMs, on chronic kidney disease with diabetes⁴¹. Our programme demonstrated the potential in using individualised therapy offered by CMPs. This laid the foundation for a subsequent randomised controlled trial funded by the HMRF and coordinated by Prof Sydney Tang of the Department of Medicine, HKU⁴².

In public health education, we have used different media to deliver IM healthcare messages. Since 2013, Dr Vivian Wong, as Hon President of HKAIM, has co-hosted the weekly RTHK radio programme 精靈一 点 (on RTHK 31 TV since 2018), with the invitation

of CMPs to share different perspectives on common healthcare practices. During the COVID-19 pandemic, a total of 22 newspaper articles have been published. Those on the use of CM are important introductions for the practice of IM in the eyes of the community.

EPILOGUE - FROM SARS TO COVID-19

Integrative Medicine started in China because Chairman Mao invited the best WM doctors to learn CM, more than 60 years ago. Twenty years ago, HK introduced CM to our WM doctors via education, research and clinical practice of EBIM. Communication and collaboration are the keys to success. I have listed 39 outstanding clinicians and researchers as pioneers in this endeavour, but I wish to apologise to those who have escaped my failing memory. Equally remarkable are the CM professors, post-graduate students, researchers who are named in the 44 references.

The challenges of SARS are different from COVID-19. Given the large amount of research output on the effectiveness of IM in the management of COVID-19, we are happy that HA has started a pilot to use IM for the early and mild cases in the Asia Expo Community Treatment Facility. As shown in the article in this edition of the Hong Kong Medical Diary on "The Use of Integrative Medicine for treatment of Covid-19", there is substantial evidence from pharmacological, in vivo, in vitro and clinical studies that CM formulae, alone or in combination with standard WM treatment, provide a better outcome in terms of admissions, use of ICU and death rates.

The IM teams from HKU and HKBU were quick off the mark in such scientific exploration with publications in March and July 2020^{43,44}. Is it time that we allow CMPs to work with our expert physicians and intensivists in an effort to improve the outcome of our patients in HK, as we did in 2003 during the SARS crisis? For "long Covid-19", should we organise a proper IM study better than our small scale study in 2003?

The historical account in the article remains a personal description by the author.

References

- Leung PC. The Efficacy of Chinese Medicine for SARS: A review of Chinese publications after the crisis. The American Journal of Chinese Medicine 2007;25(4):575-581.
- Lau TF, Leung PC, Wong EYL, Fong C, Cheng KF, Zhang SC, Lam CWK, Wong V, Choy KM, Ko WM. Using herbal medicine as a means of prevention experience during the SARS crisis. 2005;33(3):345-356.
- 3. Chan JCK, Wong Taam VCW, Challenges of Severe Acute Respiratory Syndrome. 2006;Elsevier.
- 4. Hospital Authority Intranet. Drug-herb Interactions Database. Hong Kong China.
- Tse ML. Chinese medicine associated poisoning. HK Medical Diary 2016;21(11):5-7.
- 6. 中醫動 CMK. https://cmk.ha.org.hk/knowledge/researchproject/ researchfund/list-ofapproved-projects. Accessed Mar 1, 2021.
- Sui Y, Zhao H L, Wong Taam VCW, Brown N, Li XL, Kwan AKL, Hui HLW, Ziea ETC, Chan J C N (2012). A systematic review on use of Chinese medicine and acupuncture for treatment of obesity. Obesity Reviews. 2012;13(5), 409-30.
- Chung VCH, Chen M, Ying Q, Tam WWS, Wu XY, Ma PHX, Ziea, ETC, Wong, VCW, Tang J L. Add-on effect of Chinese herbal medicine on mortality in myocardial infarction: Systematic review and metaanalysis of randomized controlled trials. Evid Based Complement Alternat Med. 2013; 675906. doi: 10.1155/2013/675906

Medical Bulletin

- Wu X, Chung V C H, Hui E P, Ziea E T C, Ng B F L, Ho R S T, Tsio K K F, Wong S Y S, Wu J CY. Effectiveness of acupuncture and related therapies for palliative care of cancer: Overview of Systematic Reviews. Scientific Report, 2015;5(16776). doi: 10.1038/srep16776
- Chung V, Wu X, Hui EP, Ziea ET, Ng BF, Ho RS, . . . Wu JC. Effectiveness of Chinese herbal medicine for cancer palliative care: Overview of systematic reviews with meta-analyses. Sci Rep. 2015;5, 18111.
- Chung VC, Wu X, Lu P, Hui EP, Zhang Y, Zhang AL, . . . Wu JC. Chinese herbal medicine for symptom management in cancer palliative care: Systematic review and meta-analysis. Medicine (Baltimore). 2016;95(7), e2793.
- Lau CH, Wu X, Chung VC, Liu X, Hui EP, Cramer, H., . . . Wu JC. Acupuncture and related therapies for symptom management in palliative cancer care: Systematic review and meta-analysis. Medicine (Baltimore). 2016;95(9), e2901.
- Xu M, Deng PX, Qi C, Deng B, Zhao ZZ, Wong V, Ngan T, Kan V, Tian XY, Xu DY, Au D. Adjuvant phytotherapy in the treatment of cervical cancer: A systematic review and metaanalysis. The Journal of Alternative and Complementary Medicine. 2009;15(12), 1347-53.
- Zeng XX, Bian ZX, Wu TX, Fu SF, Ziea E, Wong TCW. Traditional Chinese medicine syndrome distribution in chronic hepatitis B populations: A systematic review. The American Journal of Chinese Medicine. 2011;39(6), 1061-1074.
- Zhang ZJ, Chen HY, Yip KC, Ng R, Wong VT. The effectiveness and safety of acupuncture therapy in depressive disorders: Systematic review and meta-analysis. Journal of Affective Disorders. 2010;124, 9-21.
- Yeung WF, Chung KF, Poon MMK, Ho FYY, Zhang SP, Zhang ZJ, Ziea ETC, Wong VT. Chinese herbal medicine for insomnia: A systematic review of randomized controlled trials. Sleep Medicine Reviews. 2012;16(6), 497-507.
- Yeung WF, Chung KF, Poon MM, Ho FY, Zhang SP, Zhang ZJ, Ziea ET, Wong VT. Acupressure, reflexology, and auricular acupressure for insomnia: A systematic review of randomized controlled trials. Sleep Medicine. 2012;13(8), 971-84.
- Yeung WF, Chung KF, Poon MMK, Ho FYY, Zhang SP, Zhang ZJ, Ziea ETC, Wong VT. Prescription of Chinese herbal medicine and selection of acupoints in pattern-based traditional Chinese medicine treatment for insomnia: A systematic review. Evid Based Complement Alternat Med, 2012; 902578.
- Chan, CLW, Wang CW, Ho RTH, Ng SM, Ziea, ETC, Wong Taam VCW. Qigong exercise for the treatment of fibromyalgia: A systematic review of randomized controlled trials. Journal of Alternative and Complementary Medicine. 2012;18(7), 641-646.
- Ng SM, Wang CW, Ho RTH, Ziea ETC, Wong VCW, Chan CLW. Tai chi exercise for patients with heart diseases: A systematic review of controlled clinical trials. Alternative Therapies in Health and Medicine, 2012;18(3), 16-22.
- Chan CLW, Wang CW, Ho RTH, Ho AHY, Ziea ETC, Wong Taam VCW, & Ng SM. A systematic review of the effectiveness of gigong exercise in cardiac rehabilitation. American Journal of Chinese Medicine. 2012;40(2), 255-67.
- Chan CLW, Wang CW, Ho RTH, Ng SM, Chan JSM, Ziea ETC, Wong VCW. A systematic review of the effectiveness of qigong exercise in supportive cancer care. Supportive Care in Cancer. 2012;20(6), 1121-33.
- Wang CW, Ng SM, Ho RTH, Ziea ETC, Wong VCW, Chan CLW. The effect of gigong exercise on immunity and infections: A systematic review of controlled trials. The American Journal of Chinese Medicine. 2012;40(6), 1143–1156.
- 24. Ho RTH, Wang CW, Ng SM, Ho AHY, Ziea ETC, Wong Taam, VCW, Chan CLW. The effect of Tai chi exercise on immunity and infections: A systematic review of controlled trials. Journal of Alternative and Complementary Medicine. 2013;19(5):389-96.
- Ma CH, Lin WL, Lui SL, Cai XY, Wong VT, Ziea E, Zhang ZJ. Efficacy and safety of Chinese herbal medicine for benign prostatic hyperplasia: Systematic review of randomized controlled trials. Asian Journal of Andrology. 2013;15, 471–482.
- Chen HY, Ma CH, Cao KJ., Ho, CMJ, Ziea E, Wong VT, Zhang ZJ. A systematic review and meta-analysis of herbal medicine on chronic obstructive pulmonary diseases. Evid Based Complement Alternat Med. 2014, 925069.
- Cheung F, Feng YB, Wang N, Yuen, MF, Tong Y, Wong VT. Effectiveness of Chinese herbal medicine in treating liver fibrosis: A systematic review and meta-analysis of randomized controlled trials. Chinese Medicine. 2012;7(5).
- 28. Cheung F, Wang XB, Wang N, Yuen MF, Ziea TC, Tong Y, Wong VT, Feng YB. Chinese medicines as an adjuvant therapy for unresectable hepatocellular carcinoma during transarterial chemoembolization: A meta-analysis of randomized controlled trials. Evidence-Based Complementary and Alternative Medicine. 2013;487919.
- Yeung WF, Chung KF, Ng KY, Yu YM, Ziea ET, Ng BF. A metaanalysis of the efficacy and safety of traditional Chinese medicine formula Ganmai Dazao decoction for depression. J Ethnopharmacol. 2014;153(2), 309-317.
- Zuo Z, Chang Q, Ngai K, Chan P, Ngan TM, Wong VT, Chow MS. Herb-drug interaction involving oseltamir and Chinese medicine formulae: Pharmacokinetic and dynamic studies. Clinical Pharmacology & Therapeutics.2009;85, S87.

- Chow MSS, Chang Q, Zuo J (2008). Herb-drug interaction involving oseltamivir and Chinese medicine formula. The FASEB Journal. 2008;22, 1136.24.
- Chang Q, Chow MSS, Zuo Z (2009). Studies on the influence of esterase inhibitor to the pharmacokinetic profiles of oseltamivir and oseltamivir carboxylate in rats using an improved LC/MS/MS method. Biomedical Chromatography. 2009;23, 852–857.
- 33. Chang Q, Wo S, Ngai KL, Wang X, Fok B, Ngan TM, Wong VT, Chan TY, Lee VH, Tomlinson B, Chan PK, Chow MS, Zuo Z. (2014). Bench to bed evidences for pharmacokinetic and pharmacodynamics interactions involving oseltamivir and chinese medicine. Evid Based Complement Alternat Med. 2014:354172.
- 34. Zhong LL, Kun W, Lam TF, Zhang SP, Yang JJ, Ziea TC, Ng B, Bian ZX. The combination effects of body acupuncture and auricular acupressure compared to sham acupuncture for body weight control: Study Protocol for a Randomized Controlled Trial. Trials. 2016 Jul 25;17(1):346.
- 35. Man SC, Hung BH, Ng RM, Yu XC, Cheung H, Fung MPM, Li LSW, Leung KP, Tsang KWY, Ziea E, Wong V, Zhang ZJ. A pilot controlled trial of a combination of dense cranial electroacupuncture stimulation and body acupuncture for post-stroke depression. BMC Complement Altern Med. 2014;14(1), 255.
- 36. Zhang ZJ, Ng R, Man SC, Li TYJ, Wong W, Tan QR, Wong HK, Chung KF, Wong MT, Tsang WKA, Yip KC, Ziea E, Wong Taam V. Dense cranial electroacupuncture stimulation for major depressive disorder— A single-blind, randomized, controlled study. 2012;PLOS ONE 7(1),e29651, 1-8.
- Chung KF, Yeung WF, Zhang ZJ, Yung KP, Man SC, Lee CP, Lam SK, Leung TW, Leung KY, Ziea ET, Wong Taam V. Randomized Non-invasive Sham-controlled Pilot Trial of Electroacupuncture for Postpartum Depression. Journal of Affective Disorders. 2012;142(1-3), 115-121.
- Leung PC, Diabetic foot ulcers a comprehensive review. Journal of the Royal Colleges of Surgeons of Edinburgh & Ireland, 2007;5(4):1-16.
- 39. Wong W, Lam CLK, Wong Taam V, Yan ZM, Ziea ETC, Kwan AKL. Validation of the constitution in Chinese Medicine questionnaire: Does the traditional Chinese Medicine concept of body constitution exist? Evid Based Complement Alternat Med. 2013; 481491.
- Wong W, Lam CL, Su YC, Lin SJ, Ziea ET, Wong VT, Wai LK, & Kwan, AK. Measuring body constitution: validation of the Body Constitution Questionnaire (BCQ) in Hong Kong. Complement Ther Med. 2014; 2(4), 670-682.
- 41. Chan KW. Integrative management for diabetic kidney disease Patients' and clinicians' perspectives, clinical effectiveness and possible mechanisms [PhD thesis]. Hong Kong: The University of Hong Kong; 2018.
- 42. Chan KW, Ip TP, Kwong AS, Lui SL, Chan GC, Cowling BJ, et al. Semi-individualised Chinese medicine treatment as an adjuvant management for diabetic nephropathy: a pilot add-on, randomised, controlled, multicentre, open-label pragmatic clinical trial. BMJ Open. 2016;6(8):2015-010741.
- 43. Chan KW, Wong Taam V, Tang SC. COVID-19: An update on the epidemiological, clinical, preventive and therapeutic evidence and guidelines of integrative Chinese-western medicine for the management of 2019 Novel Coronavirus Disease. Am J Chin Med. 2020;48(3):737-62.
- Zhong LLD, Lam WC, Yang W, Chan KW, Sze SCW, Miao J, et al. Potential targets for treatment of Coronavirus Disease 2019 (COVID-19): A review of Qing-Fei-Pai-Du-Tang and its major herbs. Am J Chin Med. 2020;48(5):1051-71.