

Editorial**Diabetes Mellitus in Thai Traditional Medical Theory**

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Diabetes mellitus (DM) is a chronic metabolic disease which leads to an increase in blood glucose levels. In Thai traditional medicine (TTM), DM is called “Ma-Dhu-Me-Ha” which is combined with two words, “Ma-Dhu-Ra” and “Me-Ha”, meaning sweet taste and urination, respectively.¹ Thus, the combination of those two words is sweet urination and is aligned with modern medical theory, in which glucose is found in the urine of DM patients. It is widely known that DM patients have impairment of pancreatic function and insulin resistance.² TTM does not directly discuss the function of the pancreas. TTM theory describes DM via the mechanism of “A-Bhat-Ta-Pitta”, a major generator of Pitta in the human body, which means the functions of the liver and pancreas. Consumption of starch, high sugar or high fat foods causes the increased accumulation of nutrients in the blood. The blood becomes “Ma-Dhu-Ros” (sweet) and then increases viscosity.¹ Continuing these events reduces the functions of the liver (Ya-Ka-Nang)³ which is the source of “Pitta” in the Tridosha system. The system is divided into three sub-systems that are “Pitta” (“Ta-Sho” or fire elements), “Vata” (“Wa-Yo” or wind elements) and “Semha” (“Ar-Po” and “Pa-Tha-Wi” or water and earth elements, respectively) systems.^{4,5} TTM theory indicates that DM is the failure of the Semha system which then affects the Pitta and Vata systems.⁴ Abnormal liver function causes a decrease the production of Pitta and then it induces the impairment of A-Bhat-Ta-Pitta. It causes the increase of Pa-Tha-Wi

or earth element’s function and then decreases the function of the Ar-Po (water) element which presents as an increase in blood viscosity. It causes the Wa-Yo (wind) element to work harder circulating the blood to all parts of the body. The fluctuation of the wind or Wa-Yo element makes the Ta-Sho (fire) element increasingly active. Thus, the fire (Ta-Sho) element moves upward in the body which causes dry mouth and throat. The patients with DM drink a lot of water which has the effect of increasing the water or Ar-Po element. The water (Ar-Po) element moves down the body because it is an element that has weight. This event causes patients to urinate frequently and increases kidney or “Pi-Ha-Kang” functions. Then, DM patients have lower extremity edema which is an effect from the loss of Pi-Ha-Kang functions. Moreover, the abnormality of the wind or Wa-Yo elements flow into all organs in the body i.e. “Hathai-Vata”, “Summana-Vata” and “Sathaka-Vata”.¹ It can be compared with the nervous system in modern medicine. The abnormality of the nervous system presents with numbness in the hands and feet, which affects sensory loss. A herbal remedy that is widely used for the treatment of DM is “Ma-Dhu-Ra-Me-Ha” recipe and is currently being investigated for its anti-DM effect in animal models^{4,6} and clinical trials.^{7,8}

In conclusion, DM in TTM theory is triggered by the deficiency of A-Bhat-Ta-Pitta functions, and relates to modern medicine with sweet urination or glucose in the urine, detected in patients with DM.

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