



Dr Ko Ko

Dept. of Endocrinology, North Okkalapa General Hospital, University of Medicine 2, Yangon, Myanmar



Dr Moe Wint Aung

Dept. of Endocrinology, Yangon General Hospital, University of Medicine 1, Yangon, Myanmar



Dr Ye Myint

Dept. of Endocrinology, Yangon General Hospital, University of Medicine 1, Yangon, Myanmar



Mr Sudhanshu Sharma

Wockhardt Ltd, Yangon, Myanmar



Dr Sanjay Kalra

Dept. of Endocrinology, Bharti Hospital, Karnal, Haryana, India; Dept. of Psychiatry, MM Institute of Medical Sciences & Research, Mullana, Haryana, India

The Pyinsa Rupa Model of Diabetes Care: Inspiration from Myanmar

ABSTRACT

In this communication, we describe the Pyinsa Rupa, the famous mythical hybrid animal of Myanmar culture and history. This animal integrates various features of the lion, elephant, deer, ngagyin fish and hintha bird, into one composite creature. We utilize the unique characteristics of these animals: strength, sustainability, sociability, safety and swiftness, to craft a model that can serve as a beacon for diabetes care and diabetes care delivery.

Keywords: Diabetes, diabetes care delivery, glycemic pentad, Myanmar, person-centered care, psychosocial issues, South East Asia

Myanmar is a country rich in history and tradition. Traditional Myanmar wisdom, with its quintessential relevance, can help in tackling many of the challenges that we face in the modern world. One such health-related issue is diabetes. In this opinion piece, we utilize the Pyinsa Rupa, the famous mythical hybrid animal of Myanmar,¹ to create a culturally relevant model for holistic diabetes care delivery, for appropriate choice of targets and techniques in diabetes management, and for rational evaluation of various glucose-lowering interventions.

THE PYINSA RUPA

The Pyinsa Rupa is a mythical hybrid of five animals.¹ These include three terrestrial animals – the lion, elephant and water buffalo, one aquatic creature - the ngagyin fish (white carp) and one flying bird - the hintha bird. Thus, the five components of Pyinsa Rupa

are a comprehensive mix of the various classes of the animal kingdom.

These five animals are known for various characteristics: the lion for its strength, the elephant for its sustainability and the water buffalo for its sociability. The ngagyin fish, which swims in the depths of the ocean, represents safety, while the hintha bird, which flies in the skies, stands for swiftness and speed. We use the Pyinsa Rupa to create a glycemic compass, which helps create a roadmap for us, a glycemic mirror of sorts, that allows us to analyze and audit our activities in an objective manner and a glycemic beacon, that lights the way ahead.

THE HEALTH CARE ECOSYSTEM

The Pyinsa Rupa reminds us that the health care ecosystem, and specifically the diabetes care ecosystem that we create, should be strong or robust, sustainable or durable, and 'sociable' or concordant with other

aspects of health care. For example, integrating diabetes care into ongoing noncommunicable disease (NCD) prevention programs may be more effective and efficient than creating a separate vertical for diabetes care at the primary level.² An ideal diabetes care system should also offer swift and speedy results, while ensuring safety and security of the population being addressed.

DIABETES CARE STRATEGIES

Diabetes care strategies have to be individualized for each person living with the syndrome. The targets of therapy, and techniques used for treatment have to be tailored to meet the person's unique needs. The Pyinsa Rupa assists in this endeavor, by reminding us of the need to balance strength and swiftness with safety and sustainability.³ In most adults, a target glycated hemoglobin (HbA1c) of <7% is advisable. Examples include elderly persons, those with established vascular complications, and individuals with hypoglycemia unawareness. At the same time, some persons, e.g., women in pre-conception and antenatal phase of life will benefit from stricter targets.

CHOICE OF GLUCOSE-LOWERING REGIMENS

The Pyinsa Rupa teaches us to craft combinations that are able to address the glycemic pentad: control of fasting glucose, postprandial glucose and HbA1c, along with safety-minimizing glycemic variability and avoiding hypoglycemia.⁴ An example of a five-pronged management strategy is dietary advice, exercise, an insulin sensitizer, a sulfonylurea or dipeptidyl peptidase 4 inhibitors and a basal insulin.

It also reminds the treating physician to choose combinations of glucose-lowering drugs with care, based upon

their mechanism of action. For example, a combination of two sulfonylureas, or premixed insulin and glargine may not be an appropriate choice. On the other hand, crafting a "smart" combination of glargine with oral glucose-lowering drugs and/or rapid-acting insulin lives up to the 'standards' of the Pyinsa Rupa.⁵

SUMMARY

The Pyinsa Rupa, an integral part of Myanmar culture, continues to inspire countless artists and thinkers. We utilize the five animals of Pyinsa Rupa, with their unique characteristics and strengths, combined in the spirit of teamwork and concordance, to create a culturally relevant model for diabetes care delivery. We hope that this model will contribute to the betterment of diabetes control, not only in Myanmar, but beyond as well.

REFERENCES

1. Pyinsarupa. Available at: <https://en.wikipedia.org/wiki/Pyinsarupa>. Last accessed June 15, 2023.
2. Kabir A, Karim MN, Islam RM, Romero L, Billah B. Health system readiness for non-communicable diseases at the primary care level: a systematic review. *BMJ Open*. 2022;12(2):e060387.
3. The glycemic pyramid. Available at: https://www.researchgate.net/publication/335704179_THE_GLYCAEMIC_PYRAMID. Last accessed June 15, 2023.
4. Kalra S, Baruah MP, Sahay R, Kishor K. Pentads and hexads in diabetes care: numbers as targets; numbers as tools. *Indian J Endocrinol Metab*. 2017;21(6):794-6.
5. Bajaj S, Das AK, Kalra S, Sahay R, Saboo B, Das S, et al. BE-SMART (Basal Early Strategies to Maximize HbA1c Reduction with oral Therapy): expert opinion. *Diabetes Ther*. 2019;10(4):1189-204.

