INSULINOMA REDUX
CLOSURE AND ENDURING LESSONS

Text by A/Prof Cheong Pak Yean

In 1980, just out of internal medicine (IM) training, I stumbled upon a woman with insulinoma during a house call. Recently, a chance encounter with another woman requesting a referral to rule out insulinoma as a cause of her fainting, brought a closure to the unfinished business of that house call and evoked enduring lessons for the present. It connects my days as a young doctor practising in old Singapore to my present role of generativity mentoring family medicine (FM) residents.

I interrupted Dr Yue at the start of a consultation to beckon him to another consultation room to see a patient with classical eruptions of hand, foot and mouth disease. He took the opportunity after that to consult with me about his patient. "The lady wants a referral to an endocrinologist in a public hospital," he informed me. "She is worried that she may have insulinoma as she had episodes of giddiness and fainting. She learnt by googling that fainting from hypoglycaemia may be due to insulinoma and a MRI of the abdomen was needed to diagnose it. After she found out the cost of the imaging in a private X-ray clinic, she requested the referral so that it can be done at a subsidised rate instead." Dr Yue added that the patient was currently also under investigations by a cardiologist and an ear, nose and throat (ENT) specialist. I counselled a detailed history as images of a house call I made as a young doctor flashed passed my mind. I sat in with Dr Yue for the consultation.

Fainting spells

The 50-year-old woman was rather anxious but she was a good historian. She described four episodes of fainting and near fainting. The first episode occurred five years ago when she had profuse diarrhoea in the middle of the night and fainted in the toilet. It happened again two years ago; this time she fell forward and lacerated her forehead. She also recounted another episode in which she was marooned in a car on a hot afternoon, stuck in a horrendous jam on the Causeway heading to Johor and had to endure a grossly distended bladder. Unable to ease herself, she nearly lost consciousness. Last month, she momentarily lost consciousness again while straining in the toilet. Computerised tomography of the head was normal. Her company doctor referred her to an ENT doctor and a cardiologist.

The patient intimated her fears that the episodes of giddiness and fainting may portend a stroke or something sinister as both the ENT and heart specialists were unable to pinpoint what was happening to her. Epley's manoeuvre, she recalled, was performed by the ENT doctor. However, she was told that the tests were inconclusive and she needed follow-ups. A cardiologist ordered many tests, including a cardio-echogram. She was now even more anxious as the results of the tests would only be available the following week and she wanted the MRI of the abdomen to be done soon.

A clinical examination did not reveal any significant finding. Her pulse was regular and heart sounded normal. Her blood pressure was normal at 120/70 mm Hg with no postural drop. A review of past laboratory tests done revealed no anaemia.

A/Prof Cheong Pak Yean started his professional life practising internal medicine. He then extended his practice to family medicine (FM), and in the last decade, psychotherapy as well. He hopes to impart the "three-in-one" generalist approach he honed to doctors in the National University Health System FM residency programme.

Clean bill of health

Dr Yue explained to the patient that from her history, vaso-vagal syncope seemed likely. I asked the patient if she had read the article on vaso-vagal syncope published in the *Straits Times* of 23 August 2016,[1] two days after the National Day Rally. The newspaper reported that doctors attending to Prime Minister (PM) Lee Hsien Loong attributed his "near fainting" while delivering his address to vaso-vagal syncope and gave him a clean bill of health. The patient immediately perked up and volunteered that she was also physically exhausted just prior to the episodes. On one occasion, it happened the night after she brought her children to a theme park for the entire day. Another was after vigorous physical exercise.

By now, the patient was palpably less keen about getting a referral. Dr Yue asked if she wished to do home glucose monitoring so that she could document her blood glucose when she felt giddy. If hypoglycaemia was indeed documented, she would need further investigations. The patient politely declined. As she had a scheduled cardiac appointment the following week, we reminded her to recount the stories to the cardiologist. She left the room visibly unburdened.

A near-death woman brought to life

In 1980, I encountered a patient with insulinoma during a house call. A young Malaysian worker enquired if I could do a house call to certify death for his ailing mother. I wavered as I had not seen the woman before but he pleaded and said that I could visit and have a look first as she was still breathing. He recounted that his mother, who lived in a small village in Johor, was possessed by demons every morning. In the middle of cooking for the large family, she would suddenly scream vulgarities before collapsing on the floor, and remaining stupefied for the rest of the day. She was emotionally labile and inappropriate at other times. Doctors whom she was brought to thought that she was mad.

A village medium had failed to exorcise the demons that the family suspected possessed her. The son dutifully brought her to Singapore. When the mediums in Singapore were also unable to cure her, he resorted to Western medicine. A doctor who saw the woman a few days prior prescribed her pills. The woman's condition deteriorated and she lapsed into a coma. The pills were largactil (chlorpromazine), popularly prescribed then for psychosis!

After walking past a retinue of relatives keeping vigil, I saw the woman lying motionless on a bed in a dark room of the attap house. The patient was comatose. Vital signs were normal. Pupils were equal and reactive to light, not pinpoint as of opiate overdose (opium was readily available then). Neurological examination did not show any localising sign. The interesting history revealed the diagnosis. I had encountered such cases during my IM hospital sojourn and therefore stocked vials of 20% dextrose in my house call bag. The blood from the finger prick showed a glucose level of 20mg/dL. Intravenous injections of dextrose revived her.

Malignant insulinoma and "MEN"

I soon forgot about this patient whom I referred to the emergency department of a public hospital. I only knew what happened months later when a case of insulinoma, successfully operated on and rid of hypoglycaemic episodes, was reported in the *Singapore Medical Journal (SMJ)*.[2] I hurriedly flipped the pages. Yes, it was my patient.

In the introduction to the paper, the authors wrote, "the problem lies in the early detection of the hypoglycaemia". I was in a quandary. Should I write in to the editor of *SMJ* about the interesting circumstances of how I detected it? Would I appear to be gratuitous as the large dose of largactil prescribed would have taken its toll had I not intervened? Inertia intervened.

The woman came back to me for follow-up after the operation. A few years later, she developed diabetes mellitus. The diabetes was well controlled with insulin injections. However, she started to lose weight. I was excited when thyrotoxicosis was diagnosed. Taken in tandem with the malignant insulinoma discovered earlier, she could have multiple endocrine neoplasia (MEN) syndrome! I referred her again. I do not know if this sequela was ever written up.

Closure and enduring lessons

This recent request to screen for insulinoma brought closure to the unfinished business of that house call. I spoke to Dr Teh Lip Bin, the first author of the paper and, for some months then, a colleague at Prof Seah Cheng Siang's unit at Singapore General Hospital. He recalled graphically how Prof Seah's regal grand round was disrupted by the expletives of this woman. The patient had a prior incarceration in Tanjung Rambutan, the Malayan lunatic asylum, but she was certainly more than mentally mad to hurl vulgarities when Prof Seah was holding court! Lip Bin said that he did not know I was the referring doctor as my referral letter was not in her dossier and the clerking houseman did not mention it.

After almost four decades, the diagnosis of insulinoma again intruded into my professional space. Thirty-six years ago, as a young doctor practising in the community, I picked up by serendipity a case of insulinoma in a house call. Now, as preceptor to a young doctor, we collaboratively concluded that insulinoma was unlikely in a patient and a referral unnecessary. Good history and simple clinical methods are as important now as in the past. This is the enduring lesson of "insulinoma redux".

Author's note:

The patient with syncope and giddiness, who concurrently consulted an ENT surgeon and a cardiologist, was later seen by a neurologist and then a psychiatrist after her ears and heart were "cleared". In an era when some patients may trawl the internet in search of diseases that fit their symptoms, a generalist training and approach to healthcare becomes even more important.[3]

References

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3. *Cheong PY. Education and training in family medicine: looking ahead. Singapore Med J 2014; 55(3):124-5.*