SPECIAL FEATURE

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THE FAMILY & DIABETES

"It runs in your family…" These dreaded words seem like a death sentence, when doctors use them to explain how a chronic disease like diabetes mellitus may develop more easily in susceptible individuals. Studies have suggested that having a positive family history for diabetes mellitus increases the personal risk of developing prediabetes and diabetes. The more family members involved, particularly first degree relatives, the higher the risk, which ranges from two times to more than six times the baseline risk of individuals who do not possess a family history of diabetes mellitus.

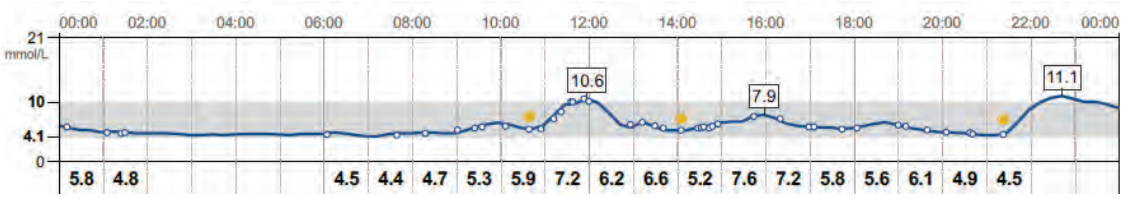
But perhaps one could swing from negative pessimism to one of cautious optimism that a positive family history can act like an early warning system for an approaching diabetes storm. It would be prudent to heed such a warning early and go for health evaluation, and if we can detect pre-diabetes or diabetes at an earlier stage, perhaps much more can be done to change the course of the disease and improve the outcome for the patient. Let me illustrate this with a recent case.

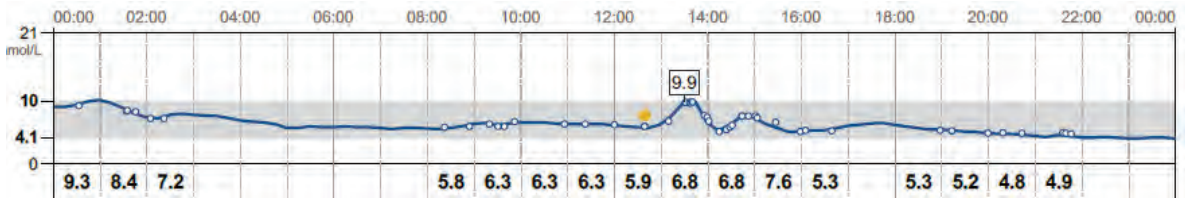
A young woman in her early 30s had consulted me recently as she was now getting anxious about her risk of developing diabetes mellitus. Her mother had suffered from diabetes mellitus, and had passed away from complications relating to the disease. It was clear that she hoped to avoid the same fate.

Scrutinising her health screening report done last year, I could see grounds for her concern. Her fasting glucose and also glycated haemoglobin (HbA1c) were elevated and despite the absence of diabetes symptoms, it was clear that she was likely developing diabetes.

The usual questions "Is my pancreas failing?", "If I abstain from all sugar from now on, can I reverse diabetes?"—a long list, understandably, from a very anxious individual. From a research standpoint, it would be possible to run a host of tests and investigations to estimate the individual's insulin sensitivity or insulin resistance and pancreatic beta cell function. However, from a more pragmatic perspective, the actionable point would be what can the individual do now to lower blood glucose levels to non-diabetic levels? And can it be achieved with lifestyle changes alone without medications?

Arguably one of the best ways forward is to first help the patient understand that diabetes is not a static number that is represented merely by a single glucose reading done early in the morning, and in the fasted state. As we can see in the graphs below and on the next page, her glucose readings do have upswings corresponding to periods of eating. It was clear that late night suppers and eating carbohydrate-rich food did have a significant impact on her glucose readings with rather slow recovery hours later.





The silver lining in this case is that overall, her glucose readings are a lot less serious than what last year's health screening would suggest, and making healthy lifestyle adjustments would probably be sufficient intervention at this point in time. Regular health check-ups and follow-ups would be prudent to reassess her progress. Although diabetes mellitus is in her genes, a negative outcome is not a foregone conclusion. A healthy, long, complication-free life is still possible because the knowledge she has from her family history enables her to make the right lifestyle choices today that will have a great impact on her future.

FAMILY TIES THAT BIND

Studies suggest that patients are more likely to adhere to treatment if they have close support from their family. Conversely, families in conflict may present a barrier to treatment adherence. Family members can play an important part in the management of diabetes. There is evidence for improvement in patients' self-efficacy, perceived social support, patients' understanding of the disease and ability to self-manage with the disease. Family support is even more important for patients who have challenging diabetes to treat as we can see in the next example.

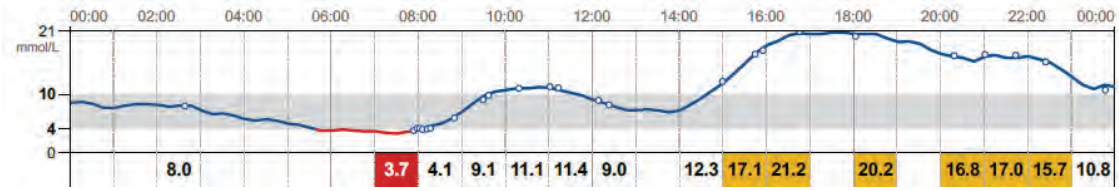
A middle-aged man in his mid-50s has been consulting me for Type 1 diabetes mellitus. He was unusual in that the disease only manifested when he was 50 years old, and not earlier in life which is typical of Type 1 diabetics. He does not have a family history of diabetes mellitus.

As you can see from the graph below, his readings are volatile, swinging from low to markedly high readings within the same day. His type of diabetes requires insulin for survival, and typically he needs at least four insulin injections per day. However, it has been a real challenge and formidable task to help him understand this new way of life where injecting insulin should be as automatic as brushing teeth or eating a meal. To add to the complexity of the management, his wife is also struggling with a severe medical ailment herself, and currently needs help with all her basic needs including toileting. This adds to the physical and mental toll on my patient, which contributes to the wide fluctuations seen in his glucose readings.

The tricky part is the decision that has to be made every meal. "How much insulin to inject?" It is really different depending on whether the meal is going to be rice or noodles, or chapati, or simply salad. Sometimes it is difficult when eating outside and everything is jumbled up like rojak or gado gado—a mix of vegetables, carbohydrates and sauces. To make matters worse, it is a lot different when the patient is under stress, having a migraine headache or when he just had a football session—all of these factors can completely change his insulin needs.

Fortunately, he has strong support from his children, who despite their busy schedules, would make time to support him in the clinic visits. It is always heartwarming to see them rally behind their father and commit to shared decisions on his treatment, as a cohesive family unit. This is essential, as the day to day handling of insulin and matching of insulin to the amount of carbohydrates consumed can be overwhelming. With close support from his family members, various aspects of diabetes care can be shared including meal planning, family activities and looking out for him during sick days.

In summary, diabetes is a family disease. It has to be tackled as a family because it does run in the family due to genetic factors and is influenced by shared environment. Family support is also an important pillar in diabetes management, and its role in optimal diabetes care cannot be underestimated.



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