



New lease of life



DR DARYL TAN

recently received the biopsy report of Mr B, 73, who has a six-year history of mantle cell lymphoma. It unfortunately confirmed that he is suffering the third relapse of the dreadful disease.

Lymphoma, a type of blood cancer, can be broadly classified into two variants – the indolent type, which is usually slow-growing, not immediately life-threatening, but incurable; and the aggressive type, which grows rapidly and can be life-threatening if not treated early, but is potentially curable.

Mantle cell lymphoma is a rare entity that has the worst traits of both variants. It is both aggressive and incurable.

I pondered over how I could best treat Mr B's current relapse without causing too many side effects. This reminded me of one of my last few patients with mantle cell lymphoma.

I started seeing Mr A in 2002, the year I started training as a haematologist. He was 62 years old and was newly diagnosed with stage 4 mantle cell lymphoma.

The average survival period of a patient with mantle cell lymphoma back then was three years.

Mr A was treated with the standard care then, which entailed several cycles of intensive conventional chemotherapy, followed by stem cell transplantation.

Conventional chemotherapy can result in indiscriminate killing of innocent bystander cells in addition to the cancer cells.

Although Mr A attained complete remission of the disease, he suffered permanent lung damage and his bone marrow was weakened as a result of treatment-related toxicity.

As expected, his cancer relapsed 3½ years later.

Since age had caught up with him and he had impaired organ functions, he was not a good candidate for further aggressive treatment.

Typically at this juncture, a palliative approach could be adopted.

MAJOR BREAKTHROUGHS

Mr A's relapse, however, occurred at a time when doctors were beginning to witness major breakthroughs in the treatment of blood cancer.

Chronic myeloid leukaemia, a type of terminal cancer where patients' average survival period was three to four years, was converted overnight to a chronic disease akin to diabetes with the introduction of a pill.

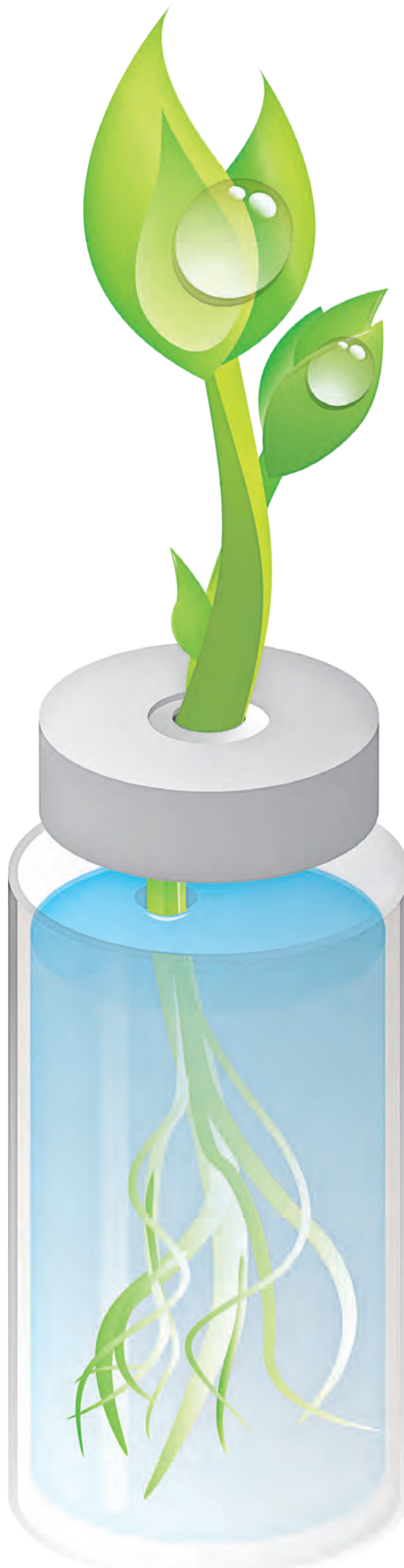
The survival period of patients with multiple myeloma, a cousin of lymphoma, was doubled with the advent of new drugs.

These improvements were predicated on scientists unravelling the mechanisms that make these types of cancer tick, and developing targeted drugs to disrupt these processes.

Although mantle cell lymphoma physically manifests as a solid tumour, and appears different from other kinds of blood cancer, we were beginning to appreciate that at the genetic level, it closely resembles multiple myeloma, which is liquid.

There were early signs that a drug called bortezomib, which has revolutionised the treatment of myeloma, could also be effective in mantle cell lymphoma.

Mr A was offered this drug and I was pleasantly surprised that he went into complete remission



ST ILLUSTRATION: ADAM LEE

without any significant side effects.

Most of us then would never have expected lymphoma to respond so well to treatment without the use of any conventional chemotherapy.

With the emergence of results from several trials, we now know that this is to be expected in many patients with mantle cell lymphoma.

Mr A was most delighted over this new lease of life, since I had primed him to expect, from the day of his diagnosis, that his life expectancy was about three years.

Two years down the road, he experienced his next relapse.

That was also when another new drug, lenalidomide, was shown to have a profound impact on myeloma, and I was leading a study testing this drug on mantle cell lymphoma.

Mr A was enrolled into this study. He responded very well and attained his third remission.

It had been six years from his diagnosis. He had defied the natural history of the disease, despite being an elderly patient who was ineligible for any conventional chemotherapy.

I was touched by his repeated expressions of gratification to the medical team for his new leases of life.

NEW DRUGS IMPROVE PROGNOSIS

Two years later, he relapsed yet again, with a huge mass, the size of a baseball, under his armpit.

As the cancer was well-confined, radiotherapy, the very first modality of treatment developed for lymphoma treatment, could be employed.

This gave him his final year of life.

During his final relapse in 2011, I had no further options for him.

He died peacefully, contented with his extra years gained.

Prior to this current relapse, Mr B had received very similar treatment as that of Mr A.

As his physical condition is better, I have been able to fall back on conventional chemotherapy as a last resort to hold the fort. However, I am worried about the associated high toxicity, which could result in death.

At a recent haematology conference which I attended, I learnt that a new drug has been shown to have unprecedented efficacy in the treatment of patients with multiple relapsed mantle cell lymphoma, such as Mr A and Mr B. The drug has been given a "breakthrough" designation for further expedited development by the Food and Drug Administration in the United States.

It is clear that Mr B's best bet for an even longer survival time could be early access to this drug.

Currently, in the treatment of blood cancer, the line between terminal disease and potential curability is getting blurred with the barrage of new targeted drugs. Hence, the prognosis of a disease such as mantle cell lymphoma keeps improving with time.

It is now apparent that a doctor is only as good as his therapeutic armamentarium, or the medicine, equipment and techniques available to a medical practitioner. Availing patients of novel drugs through clinical trials and collaborations with the industry is the key to improving patients' outcomes.

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