Let’s not get overexcited

WE refer to the recent publicity on Carica papaya leaf juice (CPLJ) as supportive treatment to aid in the recovery from dengue infection.

Undoubtedly Malaysia has seen a huge surge in the number of dengue cases, including a rise in the number of deaths in the last several years. To date there has been no specific antiviral treatment but recent advances in dengue vaccine have been promising.

In response to the absence of specific treatment, the general public has resorted to consuming alternative “medicines” that in most instances have unproven benefits or have not met safety standard of fitness for consumption.

These include a number of health food, plant concoction and drinks that have been said to be helpful in the treatment of dengue including papaya leaves, crab soup and porcupine bezoar stones.

Thus, it is encouraging that research on dengue and its management such as the study on CPLJ are being undertaken.

However, we would advise caution in interpreting the outcomes of these studies before treatment recommendations are made.

Dengue fever has a wide spectrum of clinical illnesses and severity, the most known of which is the drop in the platelet count.

Although this has generated much attention, severe bleeding in dengue fever is rarely due to low platelet count.

Furthermore, the platelets will naturally recover to its normal level within three to four days after the fever has settled.

The most important manifestation of severe dengue that warrants the greatest attention is the phenomenon of “plasma leakage”.

When this happens, fluid leaks out from the circulation into the extravascular spaces leading to accumulation of fluid including in the lungs.

This can result in a drop in blood pressure and shock if untreated. This plasma leakage phenomenon can be recognised by warning signs which include severe abdominal pain, persistent vomiting, difficulty in breathing, gum bleeding or lethargy.

Shock can be prevented and reversed by careful administration of oral or intravenous therapy. If the shock state is prolonged without treatment, most patients will start to bleed internally. It is this bleeding that many doctors are concerned about.

However, many scientific studies in children and adults have shown that the platelet count in dengue does not predict the bleeding nor will manipulating the platelet count stop the bleeding process.

The safest and most effective method to prevent severe bleeding is to recognise the warning signs, shock and institute prompt correction of shock with intravenous fluid therapy.

The good news is that the body has an innate capacity to heal. The plasma leakage switches off after 24 to 48 hours and platelet count recovers to its normal level with or without CPLJ, crab soup or other unproven treatment.

Our main concern with the current publicity on the papaya leaf extract is because it places disproportionate focus on the platelet count.

This may distract patients and doctors from the potentially life-threatening complication of plasma leakage and lead to delays in patients from seeking appropriate medical attention and doctors in properly monitoring and treating these patients.

It is our view that the study which reported improved platelet count in mice given the extract and dengue patients who consumed the papaya leaf extract remain inadequate from which to derive a recommendation for its clinical use.

In the study reported by the Institute of Medical Research (IMR), enrolled patients had mild disease in whom increased oral fluid intake or a short duration of intravenous fluid would have sufficed.

The study was also based on a relatively small number of evaluable patients and the rise in the platelet count was modest even in the group that received the papaya leaf extract to affect a strong clinical outcome.

We feel that there is currently inadequate scientific evidence to support that CPLJ is beneficial in aiding recovery from dengue virus infection.

It is also worth noting that papaya leaves contain a high amount of alkaloids that are known to be toxic and they include a compound known to have direct effects on the heart.

We urge the public and the medical community to refocus their attention on preventing the spread of dengue, early detection of dengue infection, and to seek immediate medical attention should warning signs emerge.

Lastly, anyone with symptoms suggestive of dengue should seek medical attention and refrain from self-medicating with unproven substances.

PROF ADEEBA KAMARULZAMAN

Dengue Clinical Management and Research Group,

Faculty of Medicine, University of Malaya