

Editorial

Hydroxyurea revisited in psoriasis

In the era of biologics, it seems that they are a panacea for all the chronic intractable diseases such as psoriasis. The research and development cost associated with biologics is high because biologics are structurally complex and difficult to manufacture. The average cost of a biologic is estimated to be about 40 times that of traditional small molecule drugs.¹ The biologic medicines market is expected to grow to \$190-200 billion (USD) by 2015, and their overall market share is expected to double by 2020.² With such huge investment and profit, all strategies are used to help to generate revenue including massive infiltrative advertisement directed at the ultimate consumers—our psoriatic patients. It is not rare to receive a request from our psoriatic patients for the most advanced biologics which they have read about in the newspaper. It is understandable that these pharmaceutical companies need to recover the research and development cost as soon as possible because the patents of their products do not last long: only ten years. However, we must not forget there are many undeveloped or developing countries which are either unable to afford the high cost of biologics or do not have the supporting facilities or expertise in its application. So what can they do? Should they just let this devastating disease to erode the physical and mental health of our psoriatic patients? There is an unrelenting demand for effective, financially affordable therapeutic agents that are free of side effects. Is there a place for older treatment modalities in severe psoriasis? To mention a few of the traditional systemic anti-psoriatic treatments: methotrexate, cyclosporin, acitretin are still used as second-

line drugs for severe psoriasis. But we frequently forget a very old drug: hydroxyurea.

The favourable response of severe psoriasis to hydroxyurea was first reported by Yarbrow in 1969;³ subsequently by Schon et al.⁴ However, the initial experience of treating psoriasis with hydroxyurea was somewhat unfavourable.⁵ With more exposure and studies, dermatologists tend to regard it as a third-line systemic treatment for moderate to severe psoriasis. Layton et al suggest that hydroxyurea is an effective long-term treatment for psoriasis that is refractory to conventional topical therapy and that the incidence of serious adverse effects compares favourably with other cytotoxic drugs.⁶ It is relatively simple to prescribe hydroxyurea at a dose ranging from 1 to 2 grams per day. Dose-related bone marrow toxicity is the principal side effect of therapy although clinically significant complications are few, provided that blood counts are monitored carefully. In contrast with many other second-line agents, renal and liver diseases do not necessarily preclude treatment, and there are few drug interactions likely to be of clinical relevance in dermatology. In resistant cases, hydroxyurea can be cautiously combined with other anti-psoriatic drugs. Care should be taken if this is combined with methotrexate as both drugs can suppress bone marrow function with increased toxicity. Its onset of action is slow. But to achieve our goal, we do not need to drive an expensive fast racing car; a tram can also do the job; albeit at a slower pace.

In this issue, our Singapore colleagues have shown that hydroxyurea is useful in some selected cases in Asians. Although their study is

limited by a small sample size, selection bias (those refractory cases to other second-line systemic therapies) and only used the body surface area as the objective measurement, it still gives us some evidence to re-consider this old drug in suitable cases such as older, moderate to severe psoriatic patients with limited financial support and who do not respond to other conventional systemic treatments.

With the arrival of biologics, the trend has changed. Many young dermatologists and patients have been pre-occupied or hypnotised by the aggressive marketing strategy of the biologics pharmaceutical companies. However, biologics are not without side effects. Serious infections such as reactivation of underlying tuberculosis are particularly of concern in Hong Kong where the prevalence of tuberculosis is still high. One man's meat is another man's poison. As a responsible dermatologist, we have the obligation to reveal all the pros and cons of

the available treatment modalities to our patients and tailor a feasible long term management plan for them.

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