

Hip Arthritis: East and West meet in Hong Kong

By Dr Jason Brockwell

Hip arthritis is a common condition, but there are huge differences between East and West. Doctors are interested in national, social, gender, racial, in fact, any, differences between diseases, as this can give a clue to their origin and possible treatments.

In the West, degenerative arthritis of the hips is very common, and avascular necrosis (where the bone dies because of lack of blood) is unusual, whereas in the East it is the other way round.

Why does hip arthritis change from East to West?

We don't know for sure, and there are probably many reasons, but it's likely the most important reason is that people play much more sport in the West, and in Asia it is easier to obtain medicines, either traditional, or sold without prescription, that contain (undeclared) steroids. Steroids cause avascular necrosis – half of Hong Kong's SARS survivors, who were given high dose steroids, developed avascular necrosis – and we may see another surge as sick Covid-19 patients are given steroids.

The sports which cause arthritis of the hips involve repeated bending – lunging in racquet sports, such as tennis (Andy Murray has had a hip replaced), and kicking, such as martial arts and football – whereas sports which don't need lots of bending at the hip, for example running or cycling, don't cause arthritis.

Avascular necrosis of the hips is common right across Asia, including China, India, Japan, Korea and South East Asia. The people of this vast area are genetically different, with different diets and lifestyles. The thing they have in common is relatively

loose regulation of the supply of medicines, especially traditional medicines. Plenty of researchers, including in Hong Kong, have reported that a high percentage of traditional medicines contain undeclared chemicals – most commonly Viagra type drugs – and steroids. Why would traditional medicine manufacturers add steroids to their products?

Because steroids make people better – they reduce inflammation and pain, and, for a while, make people feel well.

Unfortunately, steroids have many side effects, including avascular necrosis, causing arthritis of the hips, for which there is no cure.

What will happen in Hong Kong?

Future generations of HongKongers will get heavier, and put more stress on their joints. As Hong Kong gets richer, and more people can afford to spend more time chasing balls around, we'll see more degenerative arthritis of the hips.

If knowledge of steroids in traditional medicines gets into the general community, the problem of avascular necrosis may be solved, either by better regulation, or by people avoiding the medicines. So, the pattern of hip disease with gradually shift from Eastern to Western.

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What does the future hold for treatment?

Currently, the gold standard is hip replacement. Modern hip replacements should last for life, and allow people to enjoy recreational sports. Special hip replacements, like Andy Murray's *Birmingham Hip Resurfacing*, while not suitable for every patient, are as good as natural hips.

Although hip replacement is a very successful treatment, today's operation is surprisingly similar to the original procedure, developed in the 1960s, and, with developments in biology, one wonders when the operation will be replaced with an injection of stem cells or similar.

Alas stem cells have disappointed in arthritis of the hips, although stem cell clinics continue to offer the treatment.

Recently scientists grew new cartilage in damaged animal joints, using stem-like cells, by adding a drug which prevented the growth of blood vessels. Cartilage cells don't have a blood supply, they receive their nutrition from the joint lubricant fluid, so, by limiting the blood supply they may have found a way to encourage cartilage growth – a potential cure for arthritis. This work is very early, so, even if ultimately successful, a person with a sore hip today will probably have a 'miracle

cure' in the form of a hip replacement operation, not a biological treatment.

Dr Jason Brockwell is an orthopaedic surgeon with a special interest in hip problems.