

## **Hip Joint Neurolysis 髖關節神經消融術**

### **Introduction**

Hip fracture is one of the most common injuries in the elderly. Despite being the definitive treatment, surgical reduction and fixation may not be suitable for all patients. About 3 out of 100 patients with hip fractures in Hong Kong are managed conservatively when they have significant comorbidities and their associated anaesthetic risks are deemed to be too high for surgeries. These patients may experience severe movement-related pain for up to 2 months before the natural healing process occurs. Hip joint neurolysis can be used to treat this type of severe movement-related pain when oral and injectable analgesics alone are ineffective.

### **What are the benefits?**

Patients will usually benefit from around 50% or above of pain reduction after hip joint neurolysis. It also depends on the type of fracture.

- This can facilitate various nursing procedures, such as sitting out of bed and turning on bed.
- This can reduce complications from a prolonged bed-ridden status, such as bedsores, deep vein thrombosis and pneumonia.

### **How does Hip Joint Neurolysis work?**

Hip joint neurolysis is a palliative interventional pain procedure that essentially removes the function of anterior articular sensory nerve branches largely responsible for the pain sensation of hip joint. It does not fix the hip fracture. This procedure can interrupt the transmission of pain signals and achieve pain reduction clinically.

- This is achieved by injecting local anaesthetics, followed by a neurolytic agent around the sensory nerve branches near fractured hip joint.
- The effect from the local anaesthetic is usually short term and lasts up to 24hrs.
- Patients will then experience partial to full return of their initial pain between day 2 and 4 after their procedure. This is because the effect of the neurolytic agent

may take 5 - 7 days to have its full action and the resulting pain relief can last for several weeks to several months.

### **The Procedure**

- This procedure is performed under local anaesthesia with full aseptic condition.
- Usually you will be asked to lie supine on the operating table. You are requested to lie as still as possible during insertion of needle to prevent any complications.
- Real time ultrasound (or X ray) guidance is usually used to assist needle positioning in targeted area at groin region.
- A diagnostic block will be performed first with local anaesthetic. A neurolytic agent will then be injected around the targeted nerve branches if the diagnostic block is positive (immediate pain reduction of more than 50% on moving the hip).
- The whole procedure takes between 20-40 minutes.

### **Side Effects and Complications**

There are potential side effects and complications, which in most cases are rare and not serious.

- The neurolysis essentially involves the anterior sensory nerve branches of the hip only. Therefore, the motor function is spared so patients can still move their legs after the procedure. During the injection of the neurolytic agent, the risk of damaging other unintended structures such as muscles, bones, motor nerves, nerves to the skin, is very low.
- There is a small risk of hematoma formation due to small vessels damage but it is usually transient and self-limiting.
- If you are allergic to one of the injected drugs, you may experience allergic reactions such as rash, hot flush and dizziness. However, this is rare and can be managed by the attending physician.
- Bacterial infection due to the procedure is rare.

### **Remarks**

This is general information only and the list of complications is not exhaustive. Other unforeseen and extremely rare complications may still occur. In special patient groups, the risk profile may be different. For further information, please consult your pain doctor.