Dr Chris Milne

Sports Physician

Hamilton

Joint Injection techniques - Concurrent Workshop Repeated

Friday, 16 August 2013	Start 2:00pm	Duration: 55mins	Picasso
	Start 3:05pm	Duration: 55mins	Picasso

Corticosteroid / LA injections for musculoskeletal injuries

Dr Chris Milne

Sports Physician

Hamilton

Injection for rotator cuff problem, into sub-acromial space

Issues to discuss

Public perceptions

Evidence for efficacy

Landmark vs imaging guidance

Patient advice sheet / dealing with a post injection flare

Can he fix her? It all depends

Public perceptions

Issue	Response
These things are toxic	Only rarely, and those are the ones everyone hears about
They are painful to have	Not if given by someone with adequate training and experience, via a 25g needle
They are not natural	The cortisone is a big dose of what the body produces naturally
They are only a pain reliever, and don't deal with the underlying problem	They deal with inflammation so DO get to the root of the problem

A little discussion goes a long way….

Evidence for efficacy

- Relatively strong, multiple RCTs
- In clinical use for over 50 years, with many patients treated in that timeframe
- The more localised the problem, the more likely the injection is to be successful
- They work best as part of an overall treatment plan, incorporating rehabilitation exercises, which it is the PATIENTS responsibility to perform.

Plenty of evidence, if you look for it

STUDY PROTOCOL Open Access

The Maastricht Ultrasound Shoulder pain trial (MUST): Ultrasound imaging as a diagnostic triage tool to improve management of patients with non-chronic shoulder pain in primary care

Contra-indications to injection Ignore them at your peril!

Table 4. Contraindications to corticosteroid injection
ABSOLUTE CONTRAINDICATIONS
Joint sepsis
Prosthesis
Fracture
Bacteremia
RELATIVE CONTRAINDICATIONS
Joint instability
Coagulopathy
Cellulitis
Poor response to prior injections at that site
More than three or four injections of a particular joint within the past year

Landmark or imaging guidance

- Depends on several factors

1- Site of injection- superficial or deep

2- Patient's body habitus- thin or overweight

3- Size and accessibility of the structure to be injected

Be aware that imaging guidance adds approximately $200 to the cost of the injection

Increasing literature on image guided injections- but look who's writing it

STUDY PROTOCOL Open Access

The Maastricht Ultrasound Shoulder pain trial (MUST): Ultrasound imaging as a diagnostic triage tool to improve management of patients with non-chronic shoulder pain in primary care

Landmark or imaging guidance?

Landmark

- Knee
- Lateral elbow
- Subacromial space
- AC joint
- Medial elbow [ulnar nerve]
- Lateral hip
- SI joint
- Lateral gutter or post capsule of ankle

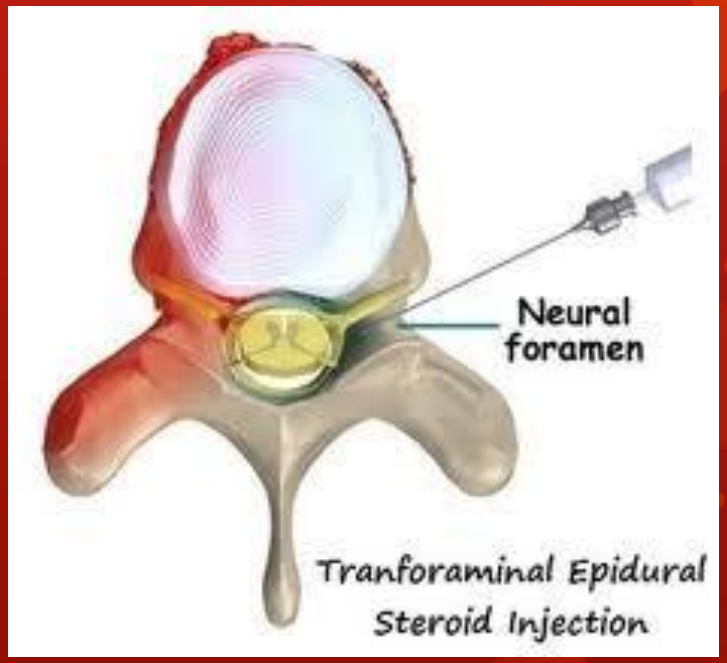
Imaging guided

- De Quervains
- Finger tendons [trigger finger]
- Hip or shoulder- intra-articular
- Peroneal tendons

Two extremes- landmark vs imaging guided injections

Landmark

Imaging guided



Patient advice sheet

- An essential part of the procedure
- Gives them time to consider the option
- Means they don’t feel railroaded into making a decision
- Makes them aware of benefits and risks
- Provides a Kiwi perspective, rather than them relying on Dr Google [who we all know is an American]

The informed patient

First this

Then this

Dealing with a post injection flare

- Commonest cause of increased pain post injection, BUT need to exclude INFECTION before making this diagnosis
- Usually comes on the same day or within 24 hours of the injection being administered
- Pain a major feature, but movement should be well preserved [as opposed to a septic arthritis]
- Patient should try NSAID in full dose in the first instance
- If this does not work, Prednisone 40 mg daily for 3-4 days will usually fix it
- Consider a prophylactic dose of prednisone prior to future injections if a past Hx of this issue

Post injection complications

Table 3. Possible complications following corticosteroid injection
SYSTEMIC
Flush
Hypersensitivity reaction
Diabetic hyperglycemia (rare)
LOCAL
Local skin atrophy and depigmentation
Tendon atrophy and rupture
Hemarthrosis (possible following aspiration)
Destruction of cartilage (conflicting evidence)
Local nerve injury
Steroid flare
Septic arthritis (very rare)

Things GPs could do better

- Recognise that the injection on its own is not a cure, and an injection without a post injection rehab regime [eg for rotator cuff injury] is essentially a wasted injection, as it will wear off after 2-3 months

- Warn patients re a post injection flare. If they have been warned, they are less likely to panic and bother you or your colleagues after hours

- Realise that the patient who needs to be 'talked into' an injection is the one that is most likely to complain if it does not cure them.

Back to golf- the definition of success!

Thank you