

Inside Story HIGHLIGHTS

From the Pacific Radiology Referrer Newsletter



Pacific Radiology

Musculoskeletal steroid injections – what about the adverse effects?

The use of musculoskeletal intra-articular, bursal, tendon sheath and epidural steroid injections is common. Accurate clinical or imaging-guided anatomical placement of medication is important to achieve the desired treatment effect. Results are often excellent due to the potent anti-inflammatory effect of the steroid. But what about the potential adverse effects?

Kenacort-A 40 (triamcinolone acetonide 40mg) is the most common agent and dose used locally. Doses of 80mg may be used for epidural injections or injections at multiple sites on the same day.

Adverse effects include:

Musculoskeletal

- > Post-injection flare with transient pain (intra-articular injection).

Endocrine

- > Suppression of insulin action. Hyperglycaemia in diabetics. Case of hyperosmolar coma reported in type 2 diabetic after 80mg steroid epidural.
- > Secondary adrenocortical and pituitary suppression. Morning serum cortisol levels may be reduced for 3-4 weeks after 80mg triamcinolone. There may be an impaired stress response due to adrenal suppression.

- > Menstrual irregularities.

Fluid and electrolyte disturbance

- > Sodium and fluid retention with hypertension and congestive cardiac failure.

Psychiatric

- > Aggravation of pre-existing conditions particularly mania and depression.
- > Euphoria, insomnia and psychotic episodes also reported.

Other

- > Insomnia, syncopal episodes and anaphylactoid reactions.

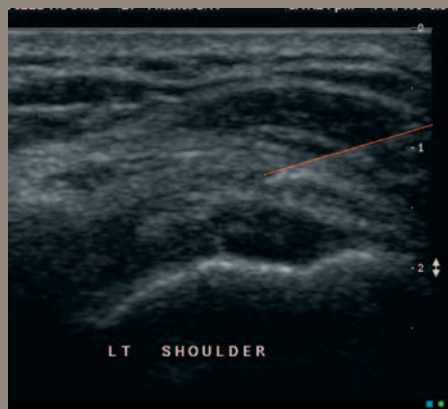
An awareness of these potential systemic adverse effects following musculoskeletal steroid injection allows for appropriate doses to be used, advice to be given at the time of injection, adverse effects to be recognised and then treated if necessary.

References:

1. Kenacort-A 40 Drug Information, Bristol-Myers Squibb (NZ).
2. Ward A, Watson J, Wood P, Dunne C, Kerr D. Glucocorticoid epidural for sciatica: metabolic and endocrine sequelae. *Rheumatology* 2002; 41:68-71.
3. Kay J, Findling J, Raff H. Epidural Triamcinolone Suppresses the Pituitary-Adrenal Axis in Human Subjects [abstract]. *Anesthesia and Analgesia* 1994; 79:501-505.



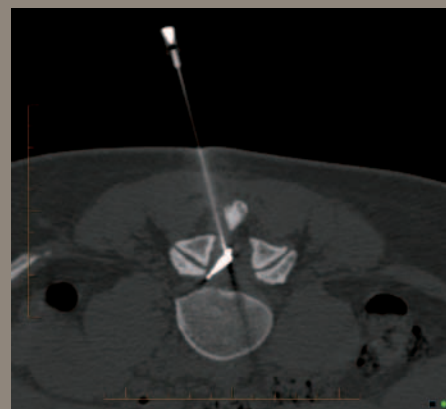
Ian Best



Left shoulder bursal injection



Left hip injection



Lumbar epidural injection