Clinical outcomes of Cervical Radiculopathy following nerve root steroid injection under image guidance

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Introduction
Cervical radiculopathy (CR) can be accompanied by neurological or motor impairment with a chief complaint of arm pain. In most cases, excellent outcomes can be achieved by conservative treatment. Nerve root steroid injection (NRSI) has been utilised for pain originating from the spine by reducing inflammatory response. Various success rates, from 50% to 80%, have been reported with NRSI for spinal pain in conservatively treated patients. Evidence for the effectiveness of NRSI for CR is lacking. Long term results are necessary to establish the efficacy of this conservative treatment pathway.

Method
A 48 month retrospective review, from the 1st January 2015 to 31st December 2016, of all patients who underwent C6 fluoroscopic guided injection was extracted from our electronic database. Patient demographics including age, sex, contact details, grade of interventionalist, complications of injection, steroid injected was gathered. This cohort was then contacted by telephone and completed:

- Neck Disability Index [NDI]
- Modified Odom’s Criteria [MOC]
- Length of relief
- Surgical intervention
- Number of injections
- Analgesic

Data collect was anonymised by removing patients name and contact details. Patients who were not contactable following two attempts were excluded as well as patients who wished not to take part.

Results
A 109 patients underwent C6 guided injection with 7 patients excluded; 51:51 (M:F;50%:50%; Table 1). All injections were conducted by one consultant (100%) with no complications (0%). Left sided injected was 54 (52%) with average follow-up time 20.11 months. A total of 5 (4.9%) patients underwent surgical intervention following the NRSI. Combined sensory and motor symptoms were reported in 50 patients (49.1%); Table 2. More than 6 weeks relief was identified in 59 patients (57.8%); Table 3. Of the 102 patients, 60 patients (58.8%) still take analgesia, either regularly (27.5%) or PRN (31.3%); Table 4. NDI quality of life score exhibited over 95% of patients have mild to severe disability (Figure 1). Functional outcome with MOC was Excellent/Good: Fair/Poor (55%:45%; Figure 2).

Conclusion: Fluoroscopic guided NSRI appears to be beneficial in patients exhibiting C6 radicular deficit.