Steroid injection into the lateral recess for low back pain

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Objective: Epidural steroid injections are one of the effective methods of conservative therapy for low back pain, but the results varied greatly. In order to improve the therapeutic results, we have adopted a highly selective lateral recess injection for the treatment of low back pain.

Methods: 150 patients with low back pain (L3, 4, 5, S1) were selected aged from 35 to 80 years with VAS score 9-4 and weight of 50-100 kg. Patients were in prone position on the DSA bed with a thick pillow under the belly pad and the related nerve root was located according to the patient's body surface area. With X-ray anchor and routine sterile drape the mark were determined and the puncture point was injected with lidocaine 1% for topical anesthesia. Under DSA guidance, the ipsilateral medial margin of small joint penetration by breaking the ligament flavum was injected of contrast to confirm the edema area of nerve root of lateral recess. 10 ml of 8% hypertonic saline was injected and five minutes later 20 ml of anti-inflammatory and analgesic solution was injected. The treatment was over after the patient status and pain relief were confirmed.

Results: Before operation and 20 minutes after operation VAS score was 7.8±1.6 and 3.4±2.0, respectively, in all cases, which indicated the statistics differences (p≤0.05). After 2 weeks, the phone follow-up showed VAS score dropped to 2.4±1.2, which had no statistics differences compared with 20 minutes after operation but statistics differences (p≤0.01) with before operation. After 1 month the follow-up showed VAS score 2.4±2.1, which had statistics differences compared with before operation but no statistics differences compared with those of 20 minutes after operation and 2 weeks after operation. Within 1 week 3 patients had facial flushing, considering the possibility of drug-induced, but disappeared after 1 week without any other postoperative complications and the review of blood was normal.

Conclusion: Compared with conventional epidural injection method the lateral recess steroid injection has a better short-and long-term pain relief for the treatment of low back pain.

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