

## Sacroiliac Joint Intraarticular Injection in True Anteroposterior View: Description of a New C-Arm Guided Method

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**Disclaimer:** There was no external funding in the preparation of this manuscript. Conflict of interest: Each author certifies that he or she, or a member of his or her immediate family, has no commercial association (i.e., consultancies, stock ownership, equity interest, patent/licensing arrangements, etc.) that might pose a conflict of interest in connection with the submitted manuscript.

Manuscript received: 04-07-2017  
Revised manuscript received: 07-31-2017  
Accepted for publication: 08-08-2017

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**Background:** The anatomic characteristics of the sacroiliac joint (SIJ) make it difficult to achieve intraarticular injection without radiologic guidance. The classic C-arm guided SIJ intervention technique is difficult. Here we describe a new and simple method for SIJ intraarticular intervention.

**Objective:** This study aims to introduce a new, simple approach for SIJ intraarticular intervention.

**Study Design:** An observational case series study.

**Setting:** The study was conducted at an academic medical center in a major metropolitan city.

**Methods:** This method of intervention was performed on 57 patients (a total of 73 joints) who were selected for diagnostic and therapeutic SIJ intervention. The procedure was done in anteroposterior (AP) view, without any C-arm angulation. The accuracy of the intraarticular injection was confirmed by using intraarticular contrast material. A numerical rating scale (NRS) score was recorded for each joint before and after the procedure; the number of x-ray exposures and number of attempts were recorded for each procedure as well.

**Results:** Successful intraarticular contrast spread was obtained in all SIJs. The number of x-ray exposures was about  $9 \pm 3$ , and there was not a remarkable difference between cases according to gender of the patient ( $P = 0.1$ ) or side of the joint ( $P = 0.2$ ). In 5 cases, the first needle placement was not correct; there were no differences between gender ( $P = 0.4$ ) and side of the joint ( $P = 0.4$ ) regarding the first successful attempt. The NRS pain scores decreased in all of the patients more than 50% after the procedure; the pain scores were similar to the results of classic methods of intraarticular interventions with successful contrast spread, and there were no remarkable differences considering gender ( $P = 0.5$ ) or side of the joint ( $P = 0.8$ ).

**Limitations:** This is a very small, nonrandomized, and controlled study; further blinded clinical trials are needed to clarify the probable advantages of this method compared with conventional ones.

**Conclusion:** This observational study introduces a new and simple approach for SIJ intraarticular intervention, with a high success rate.

**Key words:** Low back pain, sacroiliac joint, C-arm, new technique, intraarticular, injection

**Pain Physician 2018; 21:61-66**