Introduction
The authors investigated the difference in clinical outcome and the position of paddle lead spinal cord stimulation (SCS) between three-column and five-column paddle lead SCS in patients with FBSS.

Methods
In 21 patients who underwent paddle lead SCS at T9 (three-column [n=12] and five-column [n=9]) for FBSS, a 12-month follow-up numerical rating scale, percent pain relief, and CT assessment of contact angle and percent reduction of T9 canal area were investigated.

Results
There was no difference in paresthesia coverage of the painful area, trial success rate, clinical outcomes, and percent pain relief between the two groups (p>0.05). Although there was no statistical difference in the contact angles, the contact angle in the five-column group was generally greater than that of the three-column group (p=0.067). Overall reduction of 35.51 ± 4.76% in the T9 canal was observed and there was no difference between two groups (p>0.05) and no correlation between the contact angle and percent T9 spinal canal reduction (r= -0.247, p>0.05).

Conclusions
There was no difference in clinical efficacy of SCS using three and five-column paddle lead. Significant inclination of paddle lead in posterior epidural space and significant reduction in T9 canal area were observed.

Learning Objectives
to provide a real location of paddle lead for T8,9 epidural space and to help physicians to enhance the performance of paddle lead insertion and patient programming.

References