

Radiation exposure compared for lumbosacral epidural approaches

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(HealthDay)—For fluoroscopy-guided lumbosacral epidural steroid injections (ESIs), the kerma-area product (KAP) of transforaminal ESI is less than that of caudal ESI, after adjustment for length of fluoroscopy time, according to a study published in the February issue of the *Journal of Spinal Disorders & Techniques*.

Seon-Jeong Kim, M.D., from the University of Ulsan College of Medicine in Seoul, South Korea, and colleagues assessed and compared radiation exposure caused by the fluoroscopy-guided transforaminal and caudal approaches of lumbosacral ESI. Participants included 228 patients who received lumbosacral ESI (181 transforaminal and 47 caudal). In all patients, the KAP and fluoroscopy time were recorded.

The researchers found that the KAP varied from 3.02 to 1,048.2 $\mu\text{Gy m}^2$

(mean, 101.7 $\mu\text{Gy m}^2$) for transforaminal ESI, and from 16.0 to 604.5 $\mu\text{Gy m}^2$ (mean, 101.8 $\mu\text{Gy m}^2$) for caudal ESI. For transforaminal and caudal ESI, the fluoroscopy time was 11 to 161 seconds (mean, 36.0 seconds) and 4 to 678 seconds (mean, 18.2 seconds), respectively, with significantly longer fluoroscopy time for transforaminal ESI ($P = 0.000$). There was a positive correlation between KAP and fluoroscopy time for each approach (P "KAP of transforaminal ESI was less than that of the caudal ESI, after being corrected for the length of [fluoroscopy](#) time," the authors write.

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