O-arm

https://www.medtronic.com/us-en/healthcare-professionals/products/neurological/surgical-imaging-systems/o-arm.html

O-arm Indications

see O-arm Indications.

O-arm case series

From August 2015 to September 2019, 22 patients with spinal cord lesions were arranged in the group. The intraoperative cross-sectional images were acquired by the O-arm image system, which was transferred to the Stealthstation navigation system and fused with pre-operative MRI images. The image fusion was completed by the Medtronic Synergy Cranial software. The fused images were used to locate spinal cord lesions, assisted by the navigation system. The navigation errors were evaluated by measuring the maximum distance between the end of the lesion in MRI and its real position.

The image fusion was completed in all patients, and we successfully completed the image-guided surgeries of the spinal cord lesions. The time of image processing was between 7 min and 19 min, and the mean value was 15.1 ± 2.2 min. The navigation error was between 0.9 mm and 5.3 mm, the mean value was 1.6 ± 0.9 mm.

The application of precise localization of O-arm and navigation system in spinal cord lesions is

clinically reliable and feasible [1].

1)

Zhang P, Liu H, Sun Z, Wang J, Wang G. The Application of O-arm and Navigation System in Precise Localization of Spinal Cord lesions: a Case Series study [published online ahead of print, 2020 May 15]. Clin Neurol Neurosurg. 2020;196:105922. doi:10.1016/j.clineuro.2020.105922