Regionalization

Regionalization is the tendency to form decentralized regions.

There is a growing body of evidence suggesting that regionalization of subspecialty procedures to high-volume centres may limit patient morbidity and mortality, such as in patients undergoing clipping or endovascular coiling for ruptured and unruptured intracranial aneurysms, evacuation of intracerebral hemorrhage, carotid endarterectomy (CEA), resection of supratentorial brain tumours, resection of vestibular schwannomas, microvascular decompression for neurovascular compression syndromes, and decompression for lumbar stenosis [1) 2) 3) 4) 5) 6) 7) 8) 9) 10) 11) 12)].

To test the hypothesis that RT would be associated with earlier time to surgery and decreased length of stay (LOS).

Traumatic spine injury (TSI) patients >14 yr were identified using International Classification of Diseases Ninth Revision Clinical Modification diagnostic codes. Data from 2008 through 2012 were analyzed before and after RT in 2010.

RESULTS: A total of 4072 patients were identified; 1904 (47%) pre-RT and 2168 (53%) post-RT. Injury severity scores, Spine Abbreviated Injury Scale scores, and the percentage of TSIs with spinal cord injury (tSCI) were similar between time periods. Post-RT TSIs demonstrated a lower median intensive care unit (ICU) LOS (0 vs 1 d; P < 0.0001), underwent spine surgery more frequently (13% vs 11%; P = 0.01), and had a higher rate of spine surgery performed within 24 h of admission (65% vs 55%; P = 0.02). In patients with tSCI post-RT, ICU LOS was decreased (1 vs 2 d; P < 0.0001) and ventilator days were reduced (average days: 2 vs 3; P = 0.006). The post-RT time period was an independent predictor for spine surgery performed in less than 24 h for all TSIs (odds ratio [OR] 1.52, 95% confidence interval [CI]: 1.04-2.22, C-stat = 0.65). Multivariate linear regression analysis demonstrated an independent effect on reduced ICU LOS post-RT for TSIs (OR -1.68; 95% CI: -2.98 to 0.39; R2 = 0.74) and tSCIs (OR -2.42, 95% CI: -3.99-0.85; R2 = 0.72).

CONCLUSION: RT is associated with increased surgical rates, earlier time to surgery, and decreased ICU LOS for patients with TSI [13)].

RT was associated with reduced long-term mortality, increased TBIr admissions, and similar FIM score improvements for patients with sTBI [14)].

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