

Whole body CT (WBCT) scan is known to be associated with significant radiation risk especially in pediatric trauma patients. The aim of this study was to assess the use WBCT scan across trauma centers for the management of pediatric trauma patients.

METHODS: We performed a two year (2011-2012) retrospective analysis of the National Trauma Data Bank. Pediatric (age \leq 18years) trauma patients managed in level I or II adult or pediatric trauma centers with a head, neck, thoracic, or abdominal CT scan were included. WBCT scan was defined as CT scan of the head, neck, thorax, and abdomen. Patients were stratified into two groups: patients managed in adult centers and patients managed in designated pediatric centers. Outcome measure was use of WBCT. Multivariate logistic regression analysis was performed.

RESULTS: A total of 30,667 pediatric trauma patients were included of which; 38.3% (n=11,748) were managed in designated pediatric centers. 26.1% (n=8013) patients received a WBCT. The use of WBCT scan was significantly higher in adult trauma centers in comparison to pediatric centers (31.4% vs. 17.6%, p=0.001). There was no difference in mortality rate between the two groups (2.2% vs. 2.1%, p=0.37). After adjusting for all confounding factors, pediatric patients managed in adult centers were 1.8 times more likely to receive a WBCT compared to patients managed in pediatric centers (OR [95% CI]: 1.8 [1.3-2.1], p=0.001).

CONCLUSIONS: Variability exists in the use of WBCT scan across trauma centers with no difference in patient outcomes. Pediatric patients managed in adult trauma centers were more likely to be managed with WBCT, increasing their risk for radiation without a difference in outcomes. Establishing guidelines for minimizing the use of WBCT across centers is warranted ¹⁾.

¹⁾

Pandit V, Michailidou M, Rhee P, Zangbar B, Kulvatunyou N, Khalil M, O'Keeffe T, Haider A, Gries L, Joseph B. The use of whole body computed tomography scans in pediatric trauma patients: Are there differences among adults and pediatric centers? J Pediatr Surg. 2016 Apr;51(4):649-53. doi: 10.1016/j.jpedsurg.2015.12.002. Epub 2015 Dec 12. PubMed PMID: 26778841.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=whole_body_computed_tomography

Last update: **2024/06/07 02:53**

