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AB078. Patterns of treatment delay in patients with symptomatic metastatic epidural spinal cord compression

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Background: Delayed treatment in symptomatic metastatic epidural spinal cord compression (MESCC) is significantly associated with poorer functional outcomes. In this study, we aim to identify the patterns of treatment delay in patients and factors predictive of postoperative ambulatory function.

Methods: Retrospective review of patients with symptomatic MESCC treated surgically between January 2015 and January 2022. MESCC symptoms were categorized into symptoms suggesting cord compression requiring immediate referral and symptoms suggestive of spinal metastases. Multivariate analysis was performed to identify factors predictive of postoperative ambulatory function. Delays in treatment were identified and categorized into patient delay (onset of symptoms till initial medical consultation), diagnostic delay (medical consultation till radiological diagnosis of MESCC), referral delay (from diagnosis till spine surgeon review) and surgical delay (from spine surgeon review till surgery) and compared between patients.

Results: One hundred and seventy-eight patients were identified. In this cohort 92 (52.0%) patients were able to ambulate independently, and 86 (48.3%) patients were non independent. One hundred and thirty-nine (78.1%) of patients had symptoms of cord compression and 93 (52.3%) had neurological deficits on presentation. On multivariate analysis, pre-operative neurological deficits ($P=0.01$) and symptoms of cord compression ($P=0.01$) were significantly associated with post-operative ambulatory function. Mean total delay was 66 days, patient delay was 41 days, diagnostic delay was 16 days, referral delay was 3 days and surgical delay was 6 days. In patients with neurological deficits, there was a significant decrease in all forms of treatment delay ($P<0.05$). There was no significant decrease in patient delay, diagnostic delay and referral delay in patients with symptoms of cord compression.

Conclusions: Both patients and physicians understand the need for urgent surgical treatment of MESCC with neurological deficits, however there is still a need for increased education and recognition of the symptoms of MESCC.

Keywords: Metastatic epidural spinal cord compression (MESCC); treatment delay; patterns

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Footnote

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at <https://cco.amegroups.com/article/view/10.21037/cco-24-ab078/coif>). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance to the Declaration of Helsinki (as revised in 2013) and approved by National Healthcare Group Domain Specific Review Board (Singapore), DSRB Ref: 2020/00835. A waiver of consent was granted due to the retrospective nature of the study and the minimal risk involved.

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