Hypercalcaemia of malignancy: an analysis of the medical management of palliative cancer patients in community, hospice and hospital settings

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Background

Hypercalcaemia of malignancy (HCM) is a common and significant cause of morbidity and mortality. Treatment includes clinically assisted hydration and bisphosphonates.1 Denosumab has been used in some centres.2 Clinical management of hypercalcaemia varies across settings and many recommendations are based on expert opinion.3

Aims

Within a Regional Palliative Care Clinical Network in the North West of England, we aimed to:
1. Evaluate the management of HCM in community, hospice and hospital settings.
2. Develop new standards and guidelines.

Methods

1. Systematic literature review.
2. Six-month retrospective case note analysis of the management of HCM in community, hospice and hospital patients.
3. Questionnaire survey of palliative care professionals.

Results

The literature review identified 32 articles to inform development of the regional standards and guidelines. The main findings highlighted the importance of managing HCM with fluids and bisphosphonates according to symptoms and the clinical presentation of patients. This included new evidence on the possible role for Denosumab.2 Data for 79 patients was recorded from hospital (n=53, 67%), hospice (n=25, 32%) and community (n=1, 1%) settings. Patients reported high symptomatic burden: fatigue (n=41, 52%), weakness (n=38, 48%), drowsiness (n=32, 41%) and constipation (n=26, 37%).

Intravenous fluids were administered in 72 (91%) patients; 0.9% saline was most used (n=67, 85%) within 24-hours of diagnosis (n=64, 81%). Bisphosphonates were used in 55 (70%): zoledronic acid (n=28, 35%) & pamidronate (n=26, 32%) were most common. Two (3%) received denosumab and one (1%) calcitonin. Thirty-four (43%) had a previous episode of HCM, 20 (25%) had HCM within the previous 4 weeks of which 12 (60%) achieved normocalcaemia following bisphosphonates. Calcium monitoring plans were not documented in 33 (43%) cases. Healthcare professionals completing the ‘professional attitudes survey’ generally considered treatment inappropriate in the dying (n=51/66, 77%) and 8 (12%) had used denosumab previously for HCM.

Conclusion

This analysis provides data about HCM management across a variety of settings and has informed development of standards and guidelines. Further study is needed to determine the role of denosumab in management of HCM. Further information can be found at:

References