

Slumpograms, mortality and long hospital stays

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Aims

Frail, older patients are occasionally incapable of keeping their head out of the field of view of a chest X-ray (CXR), resulting in a 'slumpogram'. This study aims to prove a link between a slumped appearance on a CXR, mortality and length of hospital stay.

Methods

The CXRs of patients aged over 65, admitted to two hospitals with a catchment area of approximately 300,000, were investigated in a retrospective analysis of all CXRs taken during the first week of January 2015. Slumped patients were compared by statistical analysis with age-matched controls who had an X-ray on the same day. Data regarding the degree to which a patient has slumped, measured by the number of ribs covered, were also collected. Non-parametric tests were used to measure the correlation between the length of hospital stay and mortality. 806 CXRs were viewed, with 53 slumped patients and 53 age-matched controls identified.

Results

In all patients aged over 65, there was a statistically significant correlation between the length of stay and the number of ribs covered ($p=0.038$); however, the association between mortality and length of hospital stay was not significant ($p=0.179$). In patients aged over 80, there was a statistically significant association between the number of ribs covered and death ($p=0.015$), but no significant association with length of hospital stay.

Conclusions

A slumped CXR in a patient over 80 is associated with increased mortality. These results require further revalidation but, if true, offer a simple test to measure frailty in medical admissions and may inform resource allocation and discharge planning. ■

Conflict of interest statement

None declared.

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