COMMENTARY

This pain is killing me

The article by Jordan and Croft reports the latest in a series of studies that have examined possible links between the presence of musculoskeletal disease and subsequent mortality and/or cancer.[1] Other studies have reported somewhat conflicting results, with varying strengths and degrees of specificity of associations found. Significant relationships between mortality and pain, dependent upon the location, type or extent of pain, have been reported,[2–4] with most of the excess mortality associated with widespread pain attributable to cancer.[5] Other links have been suggested between widespread pain and increased cancer and cardiovascular mortality,[6,7] and between severe chronic pain and overall mortality and cardiovascular and respiratory disease mortality.[8] In contrast, another recent study found no significant association between pain and mortality.[9] It is likely that differences in the findings between these studies are attributable to the research being conducted on different populations, using different case definitions and methods of recording outcomes, and adjusting (or not adjusting) for different potential confounders. Certainly, an important recommendation following the early research was that further corroboration is required,[10] and this remains the case.

To that end, Jordan and Croft have used a good quality database, and theirs is easily the largest study to examine the possible associations to date. They found clear and substantial links between new presentations of musculoskeletal conditions, in those aged ≥50 years, and subsequent death (especially within 1 year) and also subsequent cancer. The links were strongest after presentation with a back or hip condition, and detailed statistical analysis shows that they could not be substantially explained by a wide range of sociodemographic or other pre-existing clinical factors.

There are four possible (not mutually exclusive) conclusions from a reading of all this research: (1) pain and/or musculoskeletal disease causes death and/or cancer; (2) the same factors that cause pain and/or musculoskeletal disease also cause death and/or cancer; (3) other factors and pain/musculoskeletal disease combine together to cause death and/or cancer; or (4) the findings arise through chance, and there is no genuine link. Jordan and Croft provide the clearest evidence yet of a genuine link, but cannot distinguish the other three potential explanations. In particular, they cannot establish causality.

So what does this mean for us as GPs? As the authors state, it should certainly heighten our awareness of the potential gravity of any presentation with chronic pain or a musculoskeletal disorder; the excess associated mortality and cancer risk, although modest, are nonetheless important. However, further work is clearly required before the findings can be applied at an individual level; we need to know ways of identifying which patients are most at risk of developing these serious outcomes. And, apart from increased vigilance, we need to test the implied hypothesis that adequate investigation and management would reduce this risk. Meanwhile, however, although the precise nature of the links are still to be elucidated, the emerging consensus that musculoskeletal disease and pain are in some way associated with subsequent cancer and death, coming on top of the well-known link with overall poor health and disability, means that we must now take the management of pain very seriously indeed. The best way of doing that is a different question entirely.

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