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Low back pain has a poor prognosis for recovery among seniors

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Cohort study

Low back pain has a poor prognosis for recovery among seniors

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Commentary on: Rundell SD, Sherman KJ, Heagerty PJ, *et al*. The clinical course of pain and function in older adults with a new primary care visit for back pain. *J Am Geriatr Soc* 2015;63:524–30.

Context

Little is known about the prognosis of low back pain (LBP) in the elderly. In 2006, two epidemiological studies from Italy and Israel reported alarming prevalence rates between 31.5% and 58%. Only one of these was a study with longitudinal data: among 277 surveyed seniors the prevalence of chronic back pain increased from 44% at 70 years old to 58% at 77 years old.[1] Larger prognostic studies in the elderly are needed. This study by Rundell and colleagues is a large longitudinal study and a major step in addressing this gap.

Methods

The study used registry data from patients aged 65 years and older and were followed over 12 months after a new primary care visit for LBP. A key advantage of the registry is its sheer size. The population is representative of insured patients in the American North-West; a wider generalisability may be slightly diminished by relatively low numbers for Hispanics (5.9%) and Asians (3.8%). Analyses for data collected at four time points were done by generalised estimated equations adjusted for covariates.

Findings

In the previous 6 months, 5211 patients had not been seen by their clinician for LBP, yet 47.3% reportedly had LBP for >3 months. The data reveal that these patients had a poor rate (23%) of recovery: the older the patient, the poorer the prognosis. Overall, these patients were not very different from primary care patients of all ages, in that longer duration of pain episodes, concurrent depression or anxiety and negative recovery expectations were positively correlated with symptom severity and disability. Higher age and longer pain duration were associated with less improvement over time. Notably, African-American patients were worse off, even after adjusting for level of education, although they had similar improvements over time.

Commentary

Most improvement in pain, function and pain inference with activities occurred in the first 3 months after the primary care visit and virtually none after 6 months. This is similar to results from cohorts of all ages.[2] The data do not reveal which, if any, therapies were provided. We can assume from the data (but do not know exact numbers) that the proportion of patients that reported resolution after 1 year did diminish with advanced age and longer duration of pain. The study collected data from 2010 to 2013 before recommendations by the National Institutes of Health (NIH) task force[3] were published defining chronic LBP (or non-recovery) as pain of >90 days in the past 6 months; the definition for recovery in the current study was being free of pain for 3 months,[4] which may provide similar numbers.

The low prevalence of recovery (23%) for older adults does not compare well with recovery data from two referenced studies in patients of all ages.[5 6] The key difference to these two cohorts is that the current study included patients with LBP of any duration (only 33.2% had pain for <1 month), whereas the referenced cohorts only included patients with acute LBP of <2 weeks or <1 month, respectively. It would be interesting to assess whether duration of pain at inception was correlated with age, and whether this was the reason for the decision not to include pain duration into the age model. As the subsample of patients with pain of <1 month in the current cohort was larger than the two prior cohorts combined, it would be interesting to assess the proportion of patients that improved in relevant outcomes by 30% in these 1728 patients with acute pain.

Implication for practice

The study provides new epidemiological insights regarding the troublesome situation of the older population and adds details about racial disparities in the USA. Similar to patients of all ages, once LBP in seniors persists over 6 months, the chances for a full recovery sink dramatically. This reinforces the need for primary and early secondary prevention of chronic pain.

Competing interests None declared.

Provenance and peer review Commissioned; internally peer reviewed.

References

1. **Jacobs JM**, Hammerman-Rozenberg R, Cohen A, *et al*. Chronic back pain among the elderly: prevalence, associations, and predictors. *Spine (Phila Pa 1976)* 2006;**31**:E203–207.
2. **Williams CM**, Maher CG, Latimer J, *et al*. Efficacy of paracetamol for acute low-back pain: a double-blind, randomised controlled trial. *Lancet* 2014;**384**:1586–96.
3. **Deyo RA**, Dworkin SF, Amtmann D, *et al*. Report of the NIH task force on research standards for chronic low back pain. *Spine (Phila Pa 1976)* 2014;**39**:1128–43.
4. **de Vet HC**, Heymans MW, Dunn KM, *et al*. Episodes of low back pain: a proposal for uniform definitions to be used in research. *Spine* 2002;**27**:2409–16.
5. **Henschke N**, Maher CG, Refshauge KM, *et al*. Prognosis in patients with recent onset low back pain in Australian primary care: inception cohort study. *BMJ* 2008;**337**:a171.
6. **Mehling WE**, Gopisetty V, Bartmess E, *et al*. The prognosis of acute low back pain in primary care in the United States: a 2-year prospective cohort study. *Spine (Phila Pa 1976)* 2012;**37**:678–84.