

Causes of Lower Back Pain: Systematic Literature Review

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Abstract

This review is aiming to discuss the causes of lower back pain, the presented review was conducted by searching in Medline, Embase, Web of Science, Science Direct, BMJ Journal and Google Scholar for, researches, review articles and reports, published over the past years. were searched up to November 2018 for published and unpublished studies and without language restrictions, if several studies had similar findings, we randomly selected one or two to avoid repetitive results. On the basis of findings and results this review found vitamin D deficiency, thoracic kyphosis, Sacral insufficiency fractures (SIF).

Keywords: Causes; Lower Back Pain; Vitamin D Deficiency; Thoracic Kyphosis

Introduction

Osteoporosis in the spine has recently spread, but its clinical effect has only been investigated recently [1,2]. Most epidemiological studies have focused on the relationship between vertebral anomalies shown on radiographs and back symptoms, and a few have examined the relationship between excessive spine curvature, back pain, and disability [1,3]. It is believed that excessive curvature of the thoracic spine caused by biomechanical stresses (kyphosis) causes chronic back pain and that excessive strain applied to the ligaments and muscles of the thoracic spine can produce local pain [4]. Excessive hepatitis in the lumbar spine may lead to chronic lower back pain. That sacral and pelvic pain could be produced by the stresses of forward bending (stooped) posture has been proposed. In addition, thoracic kyphosis may lead to disability due to pain or decreased range of thoracic or lumbar spinal movement [5].

The prevalence of back pain and its occupational significance has been documented thoroughly. In the occupational group, nurses suffer from serious injuries in preventive strategies and occupational back pain, compared to most other occupations. A number of studies

have compared the back pain an understanding of the activities associated with back pain is necessary for the development of appropriate pre-rates of nurses with those of other occupations. Studies in the United Kingdom have demonstrated that the incidence ventive strategies. Perhaps the different and unique nature of the job is the main cause of the high prevalence of back pain among nurses, as is the case with manual industrial workers [6]. It has been found to be more frequently duet occupational factors in nurses than in, for instance, a control group of teachers [7]. Others have confirmed the work relatedness of occupational back pain [8].

One of the biggest sources of growing concern for swimmers in recent years is lower back pain. Mutoh., *et al.* [9] reported an incidence of 37% of low back pain among swimmers. In another study Drori., *et al* [10].

Stress fractures are common skeletal lesions that are classified as fatigue or insufficiency fractures [11]. Fatigue fractures are caused by abnormal repetitive or prolonged loading to a bone that has a normal elastic resistance. Insufficiency fractures occur when the elastic resistance of a bone is inadequate to withstand the stresses of normal activity. In both types of fracture, bony elastic resistance is eventually exceeded, but the applied stress is not sufficient to produce a complete fracture [11,12]. In many bone conditions it may weaken leading to fractures of heart failure, and may threaten several other diseases including rheumatoid arthritis, corticosteroid and radiotherapy, but involuntary osteoporosis is the main risk factor 11. Algae, ureteral ureter, and injection [12]. The diagnosis of sacral insufficiency fractures (SIF) is often delayed or overlooked in the elderly, who usually have nonspecific pelvic or low back pain [13].

Methods

This current revision was carried out in November 2018 in accordance with the preferred reporting terms for systematic reviews and metrics for the Meta-Analysis Announcement (PRISMA) for systematic reviews. All topics on the causes of lower back pain reviewed. Such as vitamin D, thoracic kyphosis, fracture deficiency (SIF).

To achieve this goal, we searched Medline, Embase, Web of Science, Science Direct, and Google Scholar for, researches, review articles and reports, published over the past 15 years.

Our search was completed without language restrictions. Then we extracted data on study year, study design, and key outcome on diabetes. The selected studies were summarized and unreproducible studies were excluded. Selected data is shown in the table 1.

Author and year	Sample	Causes	Key point
Saud A, 2003 [14]	360 patients (90% women and 10% men)	Vitamin D deficiency	Vitamin D deficiency is a major contributor to chronic low back pain in areas where vitamin D deficiency is endemic.
B Ettinger, 1994 [15]	610 women	Thoracic kyphosis	This cross-sectional study suggests that kyphosis is associated with decreased BMD and loss of height but does not cause substantial chronic back pain, disability, or poor health in older women.
Anne G, 1996 [16]	16 patients	Sacral insufficiency fractures (SIF)	Sacral insufficiency fractures are more common than previously thought. They occur mainly in elderly women, spontaneously or, after minor trauma. Presentation is nonspecific, with low back or buttock pain, so correct diagnosis is a challenge

Table 1: Results from sequencing studies.

Inclusion criteria

Inclusion criteria were lower back pain: causes.

Exclusion criteria

Irrelevant articles [not related to the aim of this review and articles that did not meet the inclusion criteria in this review.

Data extraction and analysis

Information relating to each of the systematic review question elements was extracted from the studies and collated in qualitative tables. Direct analysis of the studies of causes of lower back pain.

Results and Discussion

Clinical trials on 360 patients, after investigation 83% of the cases show abnormal level of vitamin D, 95% rate of improvement show as result of treatment with vitamin D supplements [14].

Clinical characteristics of subjects: The KI was approximately normally distributed with a mean of 11.2 and an SD of 2.8. Representative spinal curves from subjects nearest the midpoints of the highest (kyphotic group) and lowest deciles as well as nearest the mean. As for the increase in the mean KI, compared with the increase in age ($r = 0.11$, $p < 0.01$), the results were as follows; the rate of increase was 6% per decade. Also, the percentage of women known to dogs increased from 6.1% of those aged 65 to 69 years to 15.1% of those over 80 years of age (Mantel-Haenzel chi-squared, $p = 0.03$). The correlation between KI and height loss was $+ 0.26$ ($p < 0.0001$), and the correlation between KI and BMD ranged from 0.15 for the proximal radius to 0.19 for the calcaneus ($p = < 0.0t$) [15].

The number of patients was sixteen women specifically the elderly category, with an average age of 81 years (ages 66 to 90 years), and all of them had lower back or pelvic pain. Thirteen of them complained of pain in the buttocks or deficit, directly above the broken area.

However, the diagnosis of degenerative disc disease, spinal stenosis, and hip arthritis usually comes from the presence of lower back pain, pubic pain, groin pain, radicular pain in the lower limb or broken spine pressure. In only three patients was the diagnosis of SIF diagnosed in the first examination. Symptoms were aggravated by movement or weight bearing and were relieved by rest in 16 patients. Either four were associated with thigh or pubic pain and a fracture associated with the bowel sap 1 [16].

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