

The Best Way to Investigate an Diagnose Lumber Spine

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Abstract: *To define the usefulness of the lumbar spine x-ray series in the emergency department and to generate clinical criteria for optimizing its application, we retrospectively studied 30 consecutive emergency department patients for whom lumbar spine x-rays were ordered. Patients were divided into traumatic (45%) and nontraumatic (55.4%) groups.. Four clinical findings were present in significantly different frequencies between the positive and others: an abnormal physical examination (90% vs 10%, Examine by x ray)*

Keywords: X Ray, Lumber spine, Investigate, diagnosis

1. Introduction

Low back pain is the commonest musculoskeletal condition accounting for 10–20% of visits to rheumatologists in general hospital Hail. The lifetime prevalence of low back pain is known to be 85% worldwide causing disability in 10–15% of the world's population.

It thus ranks sixth among the DALYs (disability adjusted life years) causing diseases and injuries. Although research initially concluded that the low back pain was higher in KSA countries, a systematic review of low back pain in Hail region revealed a prevalence comparable to that of Saudi Arabia .

Low back pain is usually grouped as specific, having a suspected pathological cause, and non-specific, having an unknown cause. It can also be classified as acute - less than 6 weeks, sub-acute -between 6weeks and 12 weeks and chronic-more than 12 weeks.

Imaging of the spine is one of the investigations for low back pain with plain x-ray of the lumbar spine being the commonest means of imaging. The anterior-posterior and lateral views of the lumbar spine on x-ray evaluate lumbar alignment, vertebral body and disk space size, bone space and architecture, and gross evaluation of soft tissue structures.

This is the results of study which reveal that findings of degenerative changes of the spine on x-ray which accounts for most causes of back pain do not alter its management and causes due to tumour or infection are also not common. The WHO's 2013 update paper on low back pain states categorically that the risks of high doses of lumbar spine x ray radiation do not justify its routine use.

The above situation of lumbar spine x-rays for all low back pain by physicians is not any different in Hail like KSA. Since the prevalence of low back pain in KSA has gradually increased over the years, its management including

investigations should be well structured to prevent improper diagnoses, incorrect treatment and hence pressure on the already constrained health care resources in KSA. This review therefore seeks to evaluate guidelines on the use of lumbar spine x-rays as an investigational tool for all low back pain, comparing it to existing guidelines in Hail.

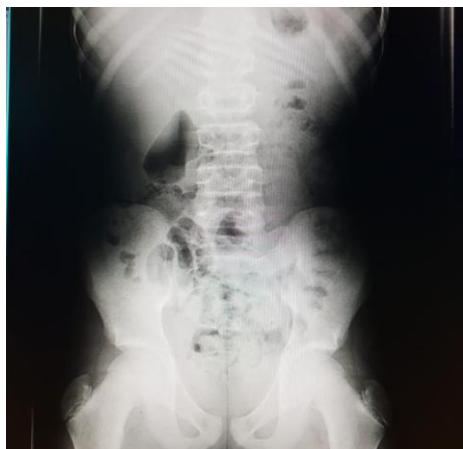
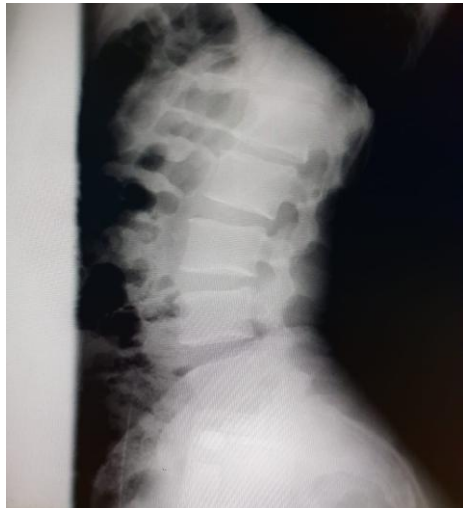
2. Methods

Key evidence for this review was clinical guidelines on the use of lumbar spine x-ray for all low back pain. A search was performed on the Hail University. Key search terms used included low back pain, investigations for back pain, x-rays, guidelines, management, Saudi Arabia, Hail. Only guidelines in English were considered and reference lists of included guidelines were added for further information. After a critical review of the search results, guidelines.

3. Results

Four guidelines on back pain ultimately emerged from the search with three of them being based in KSA cities and one from Hail. The guidelines that emerged from the search included; imaging for low back pain, the United Kingdom's (UK) National Institute for Clinical Excellence (NICE) guidelines for persistent non-specific low back pain.





The NICE Guideline

The NICE Guideline for the early management of low back pain, states clearly that x-rays of the lumbar spine should not be offered for non-specific low back pain lasting between six weeks to one year. It was developed by a multidisciplinary team including patients who used MEDLINE to develop their search strategies and is the most current guideline on low back pain in KSA that emerged from the search for guidelines.

The guideline concluded that there was no evidence of clinical benefit from referral for x-ray in terms of pain and disability but an increase in patient satisfaction which was however not a primary outcome for the guideline.

4. Discussion

This study to review major guidelines on radiographic investigation for low back pain. All the guidelines agree that a good history and clinical examination is paramount in all patients presenting with low back pain as it helps in diagnosing the cause of the back pain.

The UK and NICE guidelines do not encourage the routine referral for lumbar x-rays. They all however failed to include observational studies in the search for literature on x-ray. This may have eliminated some important information.

A 1 year General hail hospital based study on low back pain conducted in Hail, noted that the most common cause of low back pain in Hail is degenerative disease which can be diagnosed mainly on clinical grounds.

It thus recommended x-rays only for when symptoms suggested infection or tumour. The study thus recommended the development of a guideline to assist clinicians in referrals for radio diagnostic investigations.

The indications for requesting x-rays in the Hail makes it easier for clinicians to manage patients. This is because General Practitioners in Hail, referrals for x-rays.

We noted that this was because most of the guidelines were not specific on indications for x-rays and not of practical use to doctors in primary care settings. They thus recommended that guidelines should support each recommendation with adequate explanation, address the need for patient reassurance and also be adaptable to local resources.

A recent study supports our study after reviewing interventions for improving the appropriate use of imaging in people with musculoskeletal conditions having plain lumbar spine x-rays for uncomplicated acute low back pain, including guidelines, there were still very few significant improvements in the appropriate use of lumbar imaging.

5. Conclusion

There is evidence indicating very little benefit from requesting x-ray for all low back pain except in terms of increased patient satisfaction. The increased risks of exposure to radiation as well as increased workload however outweigh patient satisfaction. Thus even though the Hail recommends the use of x-rays for low back pain, it may need revision on the specific indications taking into consideration effects of excessive exposure to radiation.

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