

Original Article

Incidence of Back Pain in different age group

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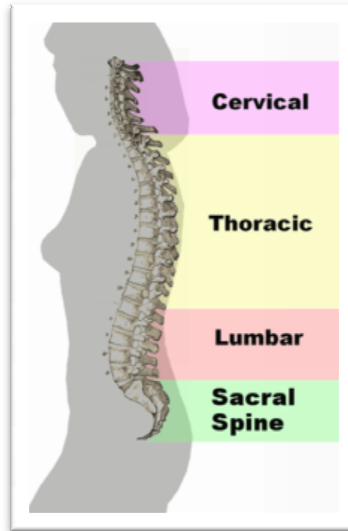
Abstract

Back pain is pain felt in the back that usually originates from the bones, joints, muscles, nerves or other structures in the spine. Back pain may appear suddenly or can be a chronic pain and it can be constant or intermittent, stay in one place or radiate to other areas. It may be a sharp or dull ache or piercing burning sensation. The pain may radiate into the hands, arms and as well as the legs or feet and may include symptoms other than pain. These symptoms may include weakness or numbness and tingling. Methodological differences among studies and lack of methodological rigor have made it difficult to draw conclusions from these studies. A study was done for adult community prevalence studies of Back Pain. The technique of capture-recapture was performed to estimate the completeness of the search strategy used. There is a genetic predisposition involved with back pain. Genetic predisposition is an inherited risk of developing a disease and your risk may be higher than that of the general population. A genetic predisposition is greater genetic likelihood of developing certain things especially diseases, allergies, temperament and a certain level of intelligence or many other examples. The Prevalence of Back Pain was highest incidence in age 35-55 years old people among different populations and the prevalence of Back Pain was lower incidence in age 20-34 years old peoples among different populations. The most vulnerable age of Back Pain was over 55 year old people. According to our research, which has been done by random sampling method; A very big or major portion of our sample has gone through back pain.

Key words: Back pain, age group, factors.

Introduction and background

Back pain is pain felt in the back that may be usually originates from the nerves, muscles, bones, joints or other structures in the spine.



The spine is a complex interconnecting network of nerves, muscles, joints, tendons and ligaments and all of which are capable of producing severe pain. Large nerves that originate in the spine and go to the legs and arms can make pain radiate to the extremities.

Classification

Back pain can be divided anatomically: neck, middle and lower back pain. And according to duration acute pain may persist (up to 12 weeks), chronic more than 12 weeks and sub acute (the second half of the acute period from 6 to 12 weeks). By the causes of pain we classify nonspecific or pain with radiculopathy or spinal stenosis and the back pain associated with another specific cause (such as any infection or cancer).

Causes

There are several potential sources and causes of back pain. However, the diagnosis of specific tissues of the spine as the cause of pain presents problems. This is because symptoms arising from different spinal tissues can feel very similar and is difficult to differentiate without the use of invasive diagnostic intervention procedures, such as local anesthetic blocks. One potential source of back pain is skeletal muscle of the back. Potential causes of pain in muscle tissue include muscle strains (pulled muscles), muscle spasm, and muscle imbalances. However, imaging studies do not support the notion of muscle tissue damage in many back pain cases, and the neurophysiology of muscle spasm and muscle imbalances is not well understood.

Another potential source of lower back pain is the synovial joints of the spine (e.g. /facet joints. These have been identified as the primary source of the pain in approximately one third of people with chronic low back pain, and in most people with neck pain following whiplash. However, the cause of

zygapophysial joint pain is not fully understood. Capsule tissue damage has been proposed in people with neck pain following whiplash. In people with spinal pain stemming from zygapophysial joints, one theory is that intra-articular tissue such as invaginations of their synovial membranes and fibro-adipose meniscoids (that usually act as a cushion to help the bones move over each other smoothly) may become displaced, pinched or trapped, and consequently give rise to nociception (pain). There are several common other potential sources and causes of back pain: these include spinal disc herniation and degenerative disc disease or isthmic spondylolisthesis, osteoarthritis (degenerative joint disease) and lumbar spinal stenosis, trauma, cancer, infection, fractures, and inflammatory disease. The anterior ligaments of the inter vertebral disc are extremely sensitive, and even the slightest injury can cause significant pain. Radicular pain (sciatica) is distinguished from 'non-specific' back pain, and may be diagnosed without invasive diagnostic tests.

New attention has been focused on *non-discogenic back pain*, where patients have normal or near-normal MRI and CT scans. One of the newer investigations looks into the role of the dorsal ramus in patients that have no radiographic abnormalities.¹

Treatment

NSAIDs (nonsteroidal anti-inflammatory drugs) with combination are mainly used to treat pain. They are usually the first medications doctors prescribe but sometimes may not be helpful enough in reducing symptoms. Doctor may suggest a biologic to help reduce pain and stiffness in case these are not effective in the spinal joints.

Its also consider other medications such as sulfasalazine for pain and swelling in your peripheral joints or corticosteroids to help reduce pain and inflammation.

Exercise and physical therapy may help relieve symptoms along with improving posture and flexibility. Doctor may recommend a regimen of exercise and physical therapy as part of treatment plan.

Methodology

The prevalence of back pain (BP) has been reported in the literature for different populations. Methodological differences among studies and lack of methodological rigor have made it difficult to draw conclusions from these studies. A systematic review was done for adult community prevalence studies of Back Pain. The technique of capture-recapture was performed to estimate the completeness of the search strategy used. Established guidelines and a methodological scoring system were used to critically appraise the studies. The purpose of this study is to identify the prevalence of back pain (BP) among the different populations. There is a genetic predisposition involved with back pain. Genetic predisposition is an inherited risk of developing a disease or condition. Having a genetic predisposition

for a disease does not mean that you will get that disease, but your risk may be higher than that of the general population. A genetic predisposition is greater genetic likelihood of developing certain things, such as diseases, allergies, temperament, a certain level of intelligence or many other examples. It should be noted that people with genetic predispositions don't always end up with the things to which they are predisposed. While genes may be a reliable predictor of certain elements, environment or other genes that haven't been identified are also important. People are predisposed but not assuredly going to express the genes they've inherited from parents. Cross sectional study design was selected for this study. Total 198 samples were selected by convenience sampling from different populations. Data was collected by mixed type questionnaire.

Result

The Prevalence of Back Pain was highest incidence in age 35-55 years old people among different populations and the prevalence of Back Pain was lower incidence in age 20-34 years old peoples among different populations. The most vulnerable age of Back Pain was over 55 years old people. Outcome of this study showed that among the some participants who were suffering from Back Pain had sudden onset of pain & had gradual onset of pain. The study concludes that different populations who were suffering from Back Pain had middle pain, 55.3% had lower pain & 35.6% had upper pain. 23.5% had work interruption & sedentary life style, obesity, strenuous sport who were suffering from Back Pain. The finding of this study is to identify different populations to over come back pain problem to take different class of medication to remove the back pain examples are analgesics, NSAIDS, muscles relaxers.

According to our research, which have been done by random sampling method:

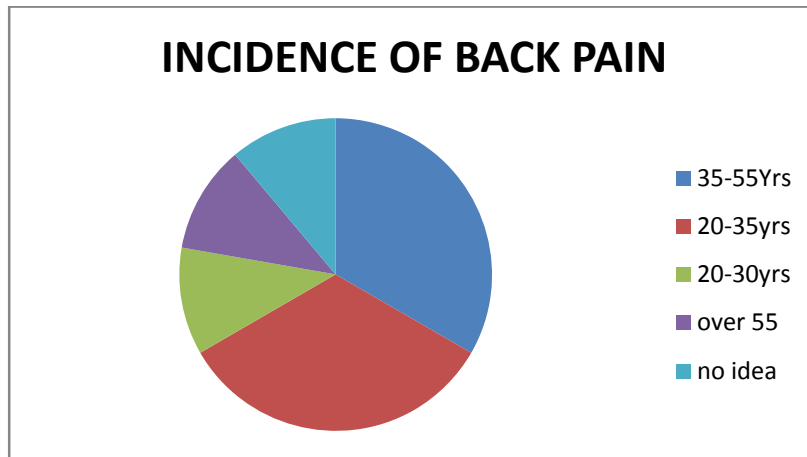
- Major portion of population suffers back pain.
- Majority of the people thinks that there is no age limitation regarding back pain, it can be experienced by any one in any age.
- Majority feels pain in their middle and lower region of their back.
- Majority of people have an idea that there is no link of back pain with genetic predisposition.

Discussion

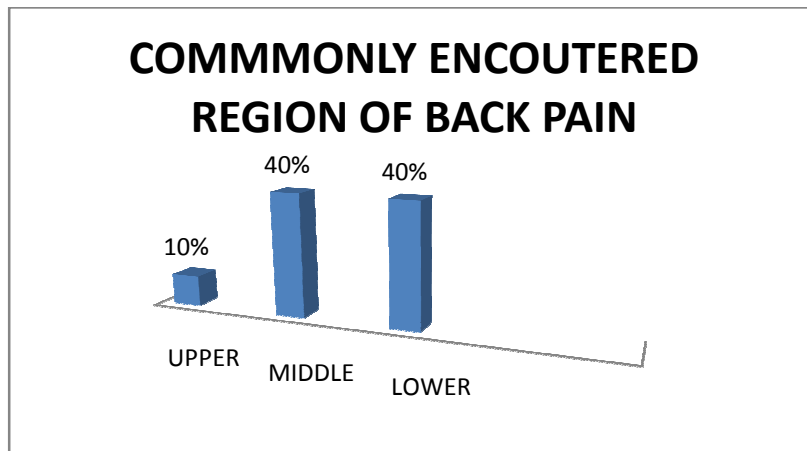
We carried out a research on incidence, prevalence, genetic predisposition and most commonly encountered area of BACK PAIN. The use of self medication without prescription is very high there for people ignore this and use pain killers and sedative byself²⁻⁵. The research was done on randomly selected sample size of about 200 individuals. For research, a questionnaire was prepared for data

collection and results were found as above. Following are the numerical values of those results. We will discuss all the important parameters separately.

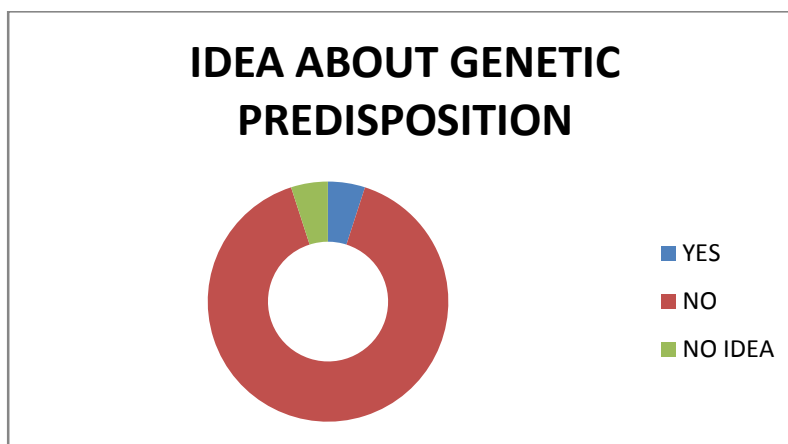
As far as the incidence of back pain is concerned , according to our results, out of 100% (200 sample size) 30% of the sampling units think that incidence of back pain is equal among all ages, 30% thinks that its between 35 – 55 years of age, 10% thinks it's in between 20 – 35 years of age, 10% thinks its 20 – 30 years of age, 10% thinks its over 55 years of age, and 10% didn't answer the question.



If we talk about region, 40% experience pain in their middle region, 40% feels it at lower part, 10% feels in upper part 10% didn't mentioned where do they feel pain



Regarding genetic predisposition, 90% of the people doesn't think that there is any link of back pain with genetic predisposition, 5 % feels that there is a link between both of them and 5% didn't answer the question.



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