

Sciatica

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May 2023

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Purpose of Study

Sciatica is a common disease that affects nearly 40% of people within their lifetime. One healthcare provider that treats sciatica is a chiropractor. New and innovative treatments for sciatica are emerging in order to treat sciatica more effectively and give patients the pain relief they seek. This poster will discuss the innovative methods to treat sciatica.

Background

The sciatic nerve is the largest and longest nerve in the human body and it originates in the lower back and extends through the buttocks down to the back of each leg. Sciatica refers to pain, weakness, numbness, or tingling in the leg. This nerve controls the muscles of the back of the knee and lower leg. It also provides sensation to the back of the thigh, the outer and back part of the lower leg, and the sole of the foot.

Sciatica is mainly diagnosed by your history of physicals. Sciatica is caused by injury to or pressure on the sciatic nerve, caused by irritation, inflammation, pinching or a compression of the nerve in the lower back. For example, a herniated or slipped disk which causes pressure on the nerve root.

Risk Factors

Risk factors for developing sciatica include:

- Having an injury/previous injury to your lower back
- Aging
- Being overweight
- Lack of strong core strength
- Active/ physical jobs that require prolonged sitting or heavy lifting
- Lacking proper posture in the weight room
- Diabetes
- Osteoarthritis
- Lead an inactive lifestyle
- Smoking
- Pregnancy

Treatment Methods and Challenges

Current treatment methods for sciatica include:

- Applying hot / cold pack to affected area
- Over the counter anti-inflammatory drugs like ibuprofen
- Performing gentle stretches
- Physical Therapy
- Acupuncture

Treating sciatica can be challenging due to the complexity of the condition and the need for individual care. Sciatica can be a chronic condition, and there is a risk of recurrence even after successful treatment.

Addressing the Disparity

Sciatica most commonly occurs in people between the ages of 30 and 50 years of age. Also, more prevalent among the pregnant population.

Discoveries and Innovation

Several innovative treatments are being investigated for sciatica. These include spinal decompression therapy, stem cell therapy, platelet-rich plasma therapy, and transcutaneous electrical nerve stimulation.

Spinal decompression therapy: involves the use of a special table that stretches the spine to relieve pressure on the nerves.

Stem Cell Therapy: involves the injection of stem cells, which can differentiate into various types of cells, into the affected area to promote healing.

Platelet-rich plasma (PRP) therapy: involves the injection of a concentrated solution of platelets, which contain growth factors that help to promote healing, into the affected area.

Transcutaneous electrical nerve stimulation (TENS): involves the use of low-level electrical currents to stimulate the nerves and reduce pain.

Conclusion

Innovative treatments for sciatica are constantly being developed and researched. It is important to consult with a healthcare professional before starting any new treatment for sciatica to determine the most effective and safe option for each individual patient.



References

Data was obtained from:
The Centers for
Disease Control and Prevention
PUBMED
Hopkins Medicine
Penn Medicine
WedMD
Mayo Clinic