



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية
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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

BOYCC

SPINAL CORD STIMULATION IN THE MANAGEMENT OF CHRONIC PAIN

ESSAY

*Submitted for partial fulfillment of the requirements for the master
degree in **ALGOLOGY***

By

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1999

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا

عَلَّمْنَا إِنَّكَ أَنْتَ الْعَلِيمُ

الْعَلِيمُ

صدق الله العظيم

البقرة (٣٢)

is a $\mathcal{B}$ -bicomodule. The $\mathcal{A}$ -bicomodule $\mathcal{A} \otimes_{\mathcal{B}} \mathcal{M}$ is a $\mathcal{B}$ -bicomodule with the left $\mathcal{B}$ -action $\mathcal{B} \otimes_{\mathcal{B}} \mathcal{M} \rightarrow \mathcal{A} \otimes_{\mathcal{B}} \mathcal{M}$ given by $b \otimes m \mapsto b \otimes m$ and the right $\mathcal{B}$ -action $\mathcal{A} \otimes_{\mathcal{B}} \mathcal{M} \otimes_{\mathcal{B}} \mathcal{B} \rightarrow \mathcal{A} \otimes_{\mathcal{B}} \mathcal{M}$ given by $a \otimes m \otimes b \mapsto a \otimes mb$. The $\mathcal{A}$ -bicomodule $\mathcal{A} \otimes_{\mathcal{B}} \mathcal{M}$ is a $\mathcal{B}$ -bicomodule with the left $\mathcal{B}$ -action $\mathcal{B} \otimes_{\mathcal{B}} \mathcal{A} \otimes_{\mathcal{B}} \mathcal{M} \rightarrow \mathcal{A} \otimes_{\mathcal{B}} \mathcal{M}$ given by $b \otimes a \otimes m \mapsto ba \otimes m$ and the right $\mathcal{B}$ -action $\mathcal{A} \otimes_{\mathcal{B}} \mathcal{M} \otimes_{\mathcal{B}} \mathcal{B} \rightarrow \mathcal{A} \otimes_{\mathcal{B}} \mathcal{M}$ given by $a \otimes m \otimes b \mapsto a \otimes mb$.

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1. The first part of the paper is devoted to a discussion of the various methods of determining the rate of growth of a population. The methods are classified into two groups: (a) methods based on the assumption of a constant rate of growth, and (b) methods based on the assumption of a variable rate of growth. The first group includes the methods of Fisher, Huxley, and others, while the second group includes the methods of Pearl, Reed, and others.

2. The second part of the paper is devoted to a discussion of the various methods of determining the rate of growth of a population. The methods are classified into two groups: (a) methods based on the assumption of a constant rate of growth, and (b) methods based on the assumption of a variable rate of growth. The first group includes the methods of Fisher, Huxley, and others, while the second group includes the methods of Pearl, Reed, and others.

3. The third part of the paper is devoted to a discussion of the various methods of determining the rate of growth of a population. The methods are classified into two groups: (a) methods based on the assumption of a constant rate of growth, and (b) methods based on the assumption of a variable rate of growth. The first group includes the methods of Fisher, Huxley, and others, while the second group includes the methods of Pearl, Reed, and others.

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INTRODUCTION AND AIM OF THE WORK

Spinal cord stimulation (SCS) has been used in clinical practice in the United States for more than 30 years. A new focus on patient selection, and cost effectiveness has led to a renewed interest among physicians and insurers. When used successfully, SCS provides pain reduction by modulating the pain signal at the spinal cord level. Although many theories exist on the mechanisms involved in pain alleviation, the most widely accepted theory is based on the gate control activation of inhibitory pathways.

The placement of a SCS system involves placing a stimulating electrode or electrodes into the epidural space. This is most commonly performed by the percutaneous approach, with the surgical approach reserved for special circumstances.

Patients with neuropathic pain syndromes of the extremities are classically the most appropriate candidates for SCS. The development of dual lead therapies has broadened the scope of stimulation indications.

It is recommended to be used in the treatment of failed back surgery syndrome (FBSS), complex regional pain syndromes [RSD), peripheral neuropathies, phantom limb pain and stump pain, ischemic extremity pain, intractable angina and incontinence.

In this essay, I shall discuss the historical backgrounds of SCS (Chapter 1), followed by a detailed review of the physiology of SCS (Chapter 2), the indications of SCS (Chapter 3), the techniques of SCS (Chapter 4), the complications of SCS (Chapter 5), the different mechanisms

of SCS (Chapter 6), cost-effectiveness of SCS (Chapter 7), discussion (Chapter 8), and summery and conclusion (Chapter 9).