

DEGENERATION STUDIES OF THE FASCICULI IN
N. ISCHIADICUS IN THE DOG

by

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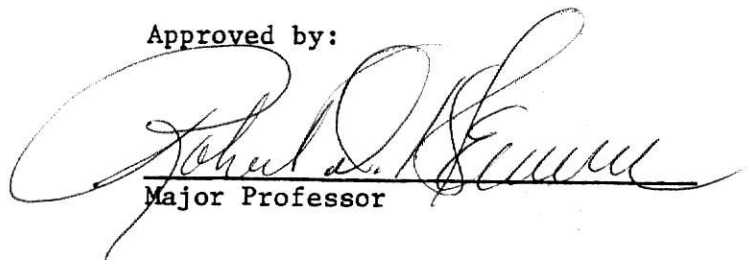
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TABLE OF CONTENTS

	Page
LIST OF TABLES	111
LIST OF FIGURES	iv
INTRODUCTION	1
LITERATURE REVIEW	3
MATERIALS AND METHODS	10
Clinical studies	
Electromyographic studies	
Degeneration studies	
RESULTS	21
Dissection studies	
Clinical studies	
Electromyographic studies	
Degeneration studies	
DISCUSSION	31
ACKNOWLEDGMENTS	63
LITERATURE CITED	64

LIST OF TABLES

Table	Page
1. Experimental procedures and postsurgical changes	15
2. Results of postsurgical changes and neurological tests on the operated leg	24

LIST OF FIGURES

Figure	Page
1. Schematic diagram showing the levels of resection of the tibial and fibular nerve bundles	12
2a. Tibial nerve paralysis	14
2b. Fibular nerve paralysis	14
3. Preparation of nerve fibers for SEM	19
4a. Tibial and fibular nerve bundles at the Foramen ischiadicus majus	35b
4b. Tibial and fibular nerve bundles dividing to give rise to the muscular branches	35b
5a. Motor unit potential recorded from the normal M. tibialis cranialis	36a
5b. Fibrillation potentials recorded from the denervated M. gastrocnemius	36a
6a. Normal tibial nerve bundles (Dog B-1)	37
6b. Degenerate fibular nerve bundles (Dog B-1).	37
7a. T.S. of normal tibial nerve fibers	39
7b. Degenerate nerve fibers of fibular nerve bundle	39
7c. L.S. of the transitional zone of the neuroma	41
7d. L.S. of degenerate nerve fibers of the distal stump	41
7e. L.S. normal nerve fibers of dog B-1	43
8a. Teased degenerate nerve fibers (L.M.) (Osmic acid stain).	45
8b. Teased degenerate nerve fibers (L.M.)	45
8c. Teased normal nerve fibers (L.M.) (Osmic acid stain).	47
8d. Teased normal nerve fibers (L.M.) (Silver stain).	47

Figure	Page
9a. Teased normal nerve fibers (SEM) (Formalin fixed)	49
9b. Partially degenerated nerve fibers (SEM)	49
10a, b. Degenerate nerve fibers showing myelin swelling (SEM)	51
10c, d. Broken myelin bubbles (SEM).	53
11a. T.S. paraffin section of degenerate nerve bundle (SEM)	55
11b. T.S. degenerate nerve bundle (L.M.)	55
12a. T.S. paraffin section of normal nerve bundle (SEM)	57
12b. T.S. of normal nerve bundle	57
13a. L.S. paraffin section of degenerate nerve bundle (SEM)	59
13b. L.S. degenerate nerve bundle	59

INTRODUCTION

The N. ischiadicus,^{a,b} a plurisegmental nerve, is the largest nerve in the dog. It has been described as the extrapelvic continuation of the Plexus lumbosacralis beyond the Foramen ischiadicus majus²⁷. The division between the plexus and the nerve is marked by the contribution of the second sacral spinal nerve root at the Foramen ischiadicus majus⁴⁶. The fibers of N. ischiadicus give out several Rami musculares to the Mm. Biceps femoris, semitendinosus and semimembranosus before turning distad and, at a variable level of the thigh, divides into Nn. fibularis and tibialis³⁰. Hoerlein³³ and Sisson⁵⁷ described the point of termination of the N. ischiadicus as being in the lower third of the thigh while Miller⁴⁶ reported that the point of termination could be as high up as the Articularis coxae. There are some authors^{22,46,47,55}, however, who describe the N. ischiadicus as two separate nerve bundles^c bound together in a common sheath, with each nerve bundle possessing an epineurium. According to the authors, these nerves can be separated to their roots of origin by pulling them apart. Habel³¹ omitted the N. ischiadicus from his analysis of the pelvic limb nerves of the dog. Degeneration and electrical stimulation studies by McKinley⁴⁵ showed that there is no communication between fibers of the two nerve bundles which constitute the N. ischiadicus.

^aThe term N. ischiadicus used in this report refers to N. tibialis and N. fibularis communis bound together in a common sheath of connective tissue sheath from the Foramen ischiadicus majus to the point of separation of the nerves.

^bAnatomical terms used in this report are according to the recommendations of Nomina Anatomica Veterinaria (1973).

^cFasiculi and bundles are interchangeable in this report.