Motor unit's and their relation with Eelectromyograms (EMG)

Motor unit—:

A single motor neuronmotoneuron and itsit's axonaxons innervatesupply not only just a muscle fiber, but also several muscle fibers; these fibers constitute . The muscl a mMotor uUnit. The numberA variety of numbers of muscle fibers in a motor unit variesare present . It in cThe motor unit of cat leg muscles that has approximately 120–, –165 fibers are present in one motor unit.

Electromyography:EMG

A Mmotor unit activity is recordedmeasured bythrough insertingplacing a coaxial electrode in-to the muscle of interestthat is tobe studied. Next, the electrode isthey are connected to an electromyographelectromyography (EMG) and a. A recording of muscular activity, known as an electromyogram, is obtained during muscular activity,. This recording is called an electromyogram (EMG).

A hypodermichollow needle can be made converted intoin to a coaxial electrode by introducing an insulatedinsolated inner wire with in into it. CPossible changes are recorded from the small volume of the muscles are recorded in the immediate vicinityneighbuorhood of the needle tip of the needle. Thus, it is has been observed that most the highest of the electrical activity is observed from in the active fibers near the electrodes. Sometimes, surface electrodes areis used in-stead of deep muscle coaxial electrodeselectrode. In this recording method, two surface electrodes are placed at a reasonable distance on the skin overlyingover the muscle to be studied muscle's at a reasonable distance.

When the muscle is at rest, no action is potential is recorded; however, as soon as the muscle becomes active, action potentials results fromare recorded. The potential recorded during activity is as a result of the asynchronous discharge of motor neuronsmotoneurons in the vicinity of the electrodes. During minimal voluntary activity, only a few number of motor

Comment [A1]: Abbreviations are not usually included in the title.

Comment [A2]: We have changed "it's" to "its" because this is a case of a possessive pronoun. The use of "it's" is incorrect because "it's" a contraction of "it is" or "it has."

Comment [A3]: Sentences have been joined together at this instance to present the intended information in a more concise manner.

units— are dischargeddischarges, and as voluntary effort activity increases, the more number of units areis activated. This is called motor unitas recruitment of motor units.

The gGradation of muscular activity is a function of thea part of the function of a number of activated motor units activated. ElectromyographicElectromyographe studies are clinically importanthave clinically importance in the diagnosisdiagnosiz of motor unit disorders, including peripheral nerve injuries, and neuromuscular disorders, such asincluding myotonia and myasthenia gravis, so on and so forth.

Comment [A4]: Redundant phrases make a sentence wordy. Being economical in writing enhances clarity (in terms of meaning) and readability of the sentence. Here, the phrase "so on and so forth" is not required as this is implied by the use of "including."

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