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ASSESSMENT AND REHABILITATION OF SHOULDER PROPRIOCEPTIVE MOTOR CONTROL THROUGH PERSONALIZED AND TECHNOLOGICAL THERAPEUTIC ASSISTANCE

PHD THESIS SUMMARY

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In the context of medical rehabilitation, approached from a dual perspective - physical and functional - among the priorities of specific programs the rehabilitation of the proprioceptive function in proximal-articular motor control should be included. In this way, the extended objectives of the rehabilitation will aim and facilitate, additionally: the rehabilitation of the amplitude of the normo-functional movement in optimal parameters; restoring tonicity and, implicitly, local muscle strength; the progressive increase of general and specific resistance to exertion.

In the evaluation process, diachronic designed in the initial, dynamic (continuous and sequential) and final stages, the objectification of the recorded data takes place by instrumental measurement with the Kinesimeter, goniometer and dynamometer.

Regarding the motor control, based on the proprioceptive information, the logistic equipment - hard and soft - has a low or absent incidence, in the conceptual and applicative design of the rehabilitation programs, contextual to the problematic approached by us.

The aim and purpose of our research project were based on the precariousness of aspects (especially in Romania) related to the development of new conceptual and procedural paradigms, aimed at physical rehabilitation, post-traumatic, shoulder functionality, and their inclusion in the package of procedures and methods of rehabilitation and systematic procedural evaluation. The finality of the research will consist in streamlining the entire path of the specific rehabilitation medical praxis, in the context.

The study of proprioception, in the context of dynamic measurements of the glenohumeral joint, is limited, so we extended the approach to post-traumatic proprioception, including four pathologies: rotator cuff lesions, glenoid labrum lesions (SLAP), proximal humerus epiphyseal fractures, and extremity fractures, distal to the clavicle and acromioclavicular dislocations. The originality and the innovative aspect of the research project derive precisely from the dynamic measurements performed and the extension of the investigation of the scapulohumeral proprioception to the whole complex of joint movements. Also, the existence of a regulatory feedback during the rehabilitation kinetic programs will lead to the personalization of the programs and the rehabilitation of proprioception, thus leading to the creation of reference grids and framing of the recorded results, which will have a strong contribution in the use of the device, thus leading to the formation of a database with increased accuracy.

The present research consists in a prospective, experimental investigation, in order to investigate the motor level related to each pathology included, from the perspective of the following components: joint amplitude, strength, body scheme, laterality and proprioceptive

control. The methods used in the research are: the method of bibliographic study, the method of observation, the method of measurements and recordings, the method of statistical-mathematical processing and the graphic method.