



LABORATÓRIO DE COMPORTAMENTO MOTOR

RELATÓRIO 2012

1 Projetos

1.2 Projetos de Investigação em curso em 2012 com avaliação externa

Neuromuscular activity in the golf swing with implications for the practice and in the prevention of overuse injuries. (PTDC/DES/105176/2008)

Coordenador: Jan Cabri

Financiamento: FCT, 145.372,00€

Resumo: The main objective of the present project is to characterize muscular activity during the golf swing, the predominant technique of the game, held responsible for the majority of golf related injuries. In order to proceed to a detailed neuromuscular description of this movement, cinematic and kinetic variables are needed. Another objective of the project is the development and application of a golf injury questionnaire in order to gain more knowledge of prevalence, training and exercise routines and related risk factors. Moreover, we pretend to culturally validate and apply the questionnaire developed in various countries for purposes of external and geographic validity.

The combination of methods, essentially cinematic analysis, muscle activity patterns, variation of grip force and foot pressure, with epidemiology information from standardized surveys, may contribute to a better knowledge on injury mechanisms and its prevention. The development of more robust EMG signal analysis methods will enable us to provide muscle coordination models, a necessary step in the description of the golf swing.

Equipe: Jan Cabri (PI, 30%), Ana Carita (10%), Ana Diniz (10%), João Barreiros (10%), João Paulo Sousa (30%), José Pedro Almeida (30%), Orlando Fernandes (10%), Pedro Pezarat Correia (30%), Sergio Marta (30%)

3 Orientações de Pós-docs

Pedro Pezarat Correia (Orientador), *Movement characteristics of the golf swing – lower limb analysis*, Maria Ant3nio Ferreira de Castro.

Jo3o Barreiros (Orientado), Pedro Passos (Co-Orientador), *An3lise de padr3es de coordena33o intra e interpessoal e m3todos de an3lise quantitativa na representatividade em tarefas de videojogos*, Tania Campos.

5 Publica33es

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Silva, L., Vaz, J., Marta, S., Paula, A., Castro, M.A., Fernandes, O., Pezarat-Correia, P. (2012). Comparison between two threshold methods related-baselines for the EMG onset detection in trunk muscles during golf swing. In R. Meeusen, J. Duchateau, B. Roelands, M. Klass, B. De Geus, S. Baudry, E. Tsolakidis (Eds.), *Book of Abstracts of the 17th Annual Congress of the European Congress of Sport Science* (pp. 543). Bruges: ECSS.

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Oliveira, R.(International Expert/review of Swiss National Science Foundation), Main Discipline 30302 Neurophysiology and Brain Research. Report of research project: 320030_146835. See it, feel it, move it. A multi-disciplinary approach to redress maladaptive changes in the CNS of patients with chronic low back pain. Due date of review: 21-01-2013.

6 Organização de Conferências e Seminários

Pezarat-Correia, P. – Seminário *Treino Funcional para o Tronco* na FMH-UTL (creditado pelo IPDJ) (13-10-2012).

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