



Fondazione
Cottino

Ocular muscles rigeneration in congenital non-progressive eye movement disorders

DESCRIPTION:

The Rigeneracons filter is a medical device able to obtain from tissues intrasurgical micro-grafts of 50 microns. Preliminary tests demonstrated that after mechanical disgregation of muscles samples, it is possible to obtain 50.000 micro-grafts. Our purpose is to use the autologous micro-grafts.

ABSTRACT:

The Rigeneracons filter is a CE - Class I approved medical device produced in Italy by HBW srl , able to obtain from human tissues intrasurgical micro-grafts of 50 microns. Preliminary tests conducted by HBW srl and Dr. L. Ambrosio, MD, PhD , demonstrated that after 1 minute mechanical disgregation of human muscles samples (5mm length), it is possible to to obtain 50.000 muscle micro-grafts. When challenged using cytofluorimetric analysis, the 90% of the obtained micro-grafts demonstrated to contain viable muscle cells, as already demonstrated in literature in human clinical trials for bone and dermal rigeneration. These promising data encouraged us to challenge these autologous micro-grafts to restore the injured ocular muscles in the purposed project. The rotation of the helix within the Rigeneracons filter, that allows the disgregation of the sample through its micro-blades, is activated by the Rigenera Machine, an electrical CE engine.