Objective: To highlight the physical or mental determinants of falls in healthy old people.

Methods: 131 volunteers were assessed for history of fall, fear of falling, co-morbidities, drugs, nutritional status, body composition, grip strength and functional and cognitive performances. People were divided in two groups according to history of falls. Mean values were compared by KW and Chi² using SAS 9.3. Results were considered statistically significant at 5% level (p < 0.05). All parameters with a p < 0.25 were then combined into a multivariate logistic regression with stepwise procedure.

Results: 30 (22.9%) volunteers have already fallen the year before and 51 (38.9%) volunteers feel fear of falling. Accurate results are presented enclosed. Briefly, in univariate analysis a difference was observed concerning sex, drugs, a functional limitation related to cognitive performances, anxiety, fear of falling, frail status, ADL, GDS-4, MNA-4, MOCA, grip strength, grip work, skeletal muscle mass, SPPB and fast walking speed (also after correction for the height). After multivariate analysis, only FES-I score and functional limitations related to cognitive performances are different between the two groups.

Conclusion: Fall prevention in healthy old people should consider more sensitive parameters than only physical components.

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Physical and mental determinants of falls in healthy old people: baseline data of the GABI Study

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