Trajectories of depressive symptoms and apathy from hospitalization to three months post-discharg

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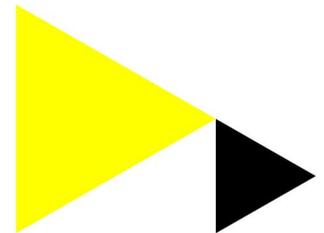
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Creating Tomorrow

In Frailomic we aimed to characterize, both biologically and clinically, frailty by profiling more than 30000 blood and urine derived -Omic signatures in four different European cohorts. In all cohorts, we combined the omic information with existing clinical data that included existing relevant markers such as disability, co-morbidity or depression among others.

The analysis was conducted as a three-stage workflow. In a first stage, we identified those signatures per omic type and per cohort type that were significantly associated with frailty, using a non-parametric approach that included as covariates known frailty covariates such as age or depression among others. In a second stage, we identified using Machine Learning techniques and per cohort, the minimal models of omic and non-omic signatures that better predicted frailty diagnosis. In a third stage, we investigated the robustness of the minimal models and the possible use in combination with existing clinical classifications of frailty.

As a result, we quantified the value of -omic improving the clinical definition of frailty, but also gained frailty-related functional information at the level of blood and urine metabolites and non-coding RNAs.

TRAJECTORIES OF DEPRESSIVE SYMPTOMS AND APATHY FROM HOSPITALIZATION TO THREE MONTHS POST-DISCHARGE

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Depressive symptoms and apathy are both causes for and a consequences of hospitalization among older persons. Depressive symptoms and apathy are highly heterogeneous in its course, and psychological or physical recovery may be related to distinct trajectories. These trajectories are unknown in the context of acute hospitalization and possibly important for post-hospital recovery. Therefore, the aim of this study was to identify distinct trajectories of depressive symptoms and apathy from acute hospitalization until three months post-discharge and to study the incidence of functional decline and mortality three months post-discharge in these trajectories. We conducted a multicenter prospective cohort study, the Hospital-Associated Disability and impact on daily Life (Hospital-ADL) study, including 400 acutely hospitalized patients of 70 years and above. Data were collected in six Dutch hospitals. We identified three depressive symptoms consistently trajectories among acutely hospitalized patients: 1]high level of depressive symptoms (10%), 2] moderate level of symptoms (28%), and 3]minimal symptoms (62%). Percentages of functional decline in the first, second and third group were 32%, 31%, and 12%, respectively. Mortality rates per group were 25%, 17%, and 5%, respectively. We identified three apathy trajectories: 1]consistently high level of symptoms (19%), 2]), 2]consistently moderate level (23%), and 3]moderate level of symptoms and decreasing post-discharge (15%). Percentages of functional decline were 23%, 7%, and 15% respectively. Mortality rates per group were 14%, 3%, and 0% respectively. These distinct trajectory groups of depressive symptoms and apathy provide information about the possible prognosis of these symptoms and functional recovery after an acute hospitalization.

ASSOCIATION OF OBESITY AND FRAILTY IN OLDER ADULTS: NHANES 1999–2004

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Body composition changes with aging can impact function in older adults leading to frailty. Measuring adiposity using body fat or central adiposity using waist circumference (WC) have greater diagnostic accuracy than traditional measures such as body mass index (BMI).

We identified individuals ≥60 years old using the 1999–2004 cross-sectional National Health and Nutrition Survey (NHANES). Body fat percent was assessed using dual energy x-ray absorptiometry and WC was objectively measured. Frailty was defined using an adapted version of Fried's criteria: (low BMI<18.5kg/m2; slow walking speed [<0.8m/s]; weakness [unable to lift 10lbs]; exhaustion [difficulty walking between rooms on same floor] and low physical activity [compared to others]). Robust, pre-frailty and frailty persons met zero, 1 or 2, and ≥3 criteria, respectively. The primary outcome evaluated the association between frailty and body fat or WC. Frailty was the primary predictor (robust=referent) and body fat and WC were considered continuous outcomes. Multiple imputation analyses accounted for missing characteristics.

Of the 4,984 participants, mean age was 71.1 ± 0.2 (SE) years (56.5% females). We classified 2,246 (50.4%), 2,195 (40.3%), and 541 (9.2%) individuals as robust, pre-frail and frail, respectively. Mean body fat and WC was 35.9% and 99.5cm in the robust, 38.3% and 100.1cm in pre-frail, and 40.0% and 104.7cm in frail individuals. After adjustment, pre-frailty and frailty were associated with a $\beta=0.37\pm0.27$,p=0.18, and $\beta=0.97\pm0.43$,p=0.03 for body fat and $\beta=2.18\pm0.64$,p=0.002, and $\beta=4.80\pm1.1$,p<0.001 for WC.

Geriatric obesity defined by higher body fat and high WC are associated with increasing rates of frailty when compared to robust patients.

SSRI/SNRI ANTI-DEPRESSANT INDUCED INTERSTITIAL LUNG DISEASE: A CASE SERIES AND CASE- CONTROL STUDY

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SSRI and SNRI anti-depressants are widely prescribed in the elderly population. For unknown reasons, the incidence of interstitial lung disease (ILD) is increasing in western populations. There are published case reports and references on the Pneumotox web site (www.pneumotox.com) linking SSRIs/SNRIs to development of ILD and/or airway involvement (ILD/AWI). A case of venlafaxine induced ILD/AWI led us to explored this association in more detail. We report a series of 5 cases and a case control study examining the association between SSRI/SNRI usage and presence of ILD/AWI in an elderly population. Participants were all 296 elderly people followed in a primary care geriatric practice. A chart audit of the electronic medical record was done to identify cases and controls. The case definition included chronic respiratory symptoms and presence of ILD/AWI on CT or CXR.