RANDOMISED INTERVENTION STUDY TO ASSESS THE PREVALENCE OF SUBCLINICAL VASCULAR DISEASE AND HIDDEN KIDNEY DISEASE AND ITS IMPACT ON MORBIDITY AND MORTALITY

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THE "ILERVAS" PROJECT

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THE “BUS OF HEALTH” PROJECT

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Cardiovascular (CV) diseases are still the leading global cause of morbidity and mortality, but current preventive measures are insufficient.

Classical CV risk factors (hypertension, dyslipidemia, obesity, smoking and diabetes) explain only 50% of CV events.

In addition, the majority of people that suffer CV events are classified in the medium or low risk categories.
The early detection and treatment of health conditions associated with an increase of CV morbimortality could be a helpful tool to decrease the incidence of cardiovascular events.

- Subclinical vascular disease
- Kidney disease
OBJECTIVES OF THE ILERVAS

1. - To determine the prevalence of subclinical arterial disease and hidden kidney disease.

2. - To assess the impact of early diagnosis of both diseases on CV morbidity and mortality.

3. - To have a platform of data and biological samples.
SOMETHING ABOUT THE PROVINCE OF LLEIDE (TO BETTER UNDERSTAND ITS SOUL)

GRAN DISPERSIÓN POBLACIONAL
iervas IS A RANDOMISED INTERVENTION STUDY

From 2015 to 2017

Patients with an open medical record in the e-CAP n=410,246 (October 2014)*

Patients with a diagnosis of diabetes, CKD, CV disease (angina, myocardial infarction, stroke, peripheral artery disease, history of vascular surgery), active neoplasm, life expectancy <18 months, institutionalised population n=364,777

Women aged 50–70 and men aged 45–65 with any CVRF: hypertension, dyslipidaemia, obesity, smoking, first-degree family history of early CV disease n = 46,069

Randomisation 19,800 people
**iervas** is a randomised intervention study from 2015 to 2017.

Randomisation: 19,800 people

- 20 patients who can be visited on working days (mobile unit) for 3 years, n=9900
- Patients who will not be visited by the mobile unit but will be randomly selected following the same protocol as the MU group for later comparison, n=9900

9,900 vs. 9,900
FOLLOW-UP PERIOD

As this is an asymptomatic population with a low to moderate CV risk, a minimum 10-year follow-up period has been established to observe the onset of CV events.

Initially the cohort will be followed up from January 2015 to January 2025.

The population will be monitored every six months to collect changes in medical history related to the study objectives.
9,900 subjects aged between 45 and 70 years without previous history of CV and with at least one cardiovascular risk factor will be randomly selected from the primary health care centers across the province of Lleida.
- Medidas antropométricas, índice tobillo-brazo
- Determinación de AGEs (AGE Reader™)
- Ecografía de arterias carótidas
- Ecografía de les arterias femorales
- Ecografía transcranial
- Ecografía aorta abdominal (Hombres >60 años)
- Espirometría (Datospir®)
- Cuestionarios (Berlin, IPAC, Epworth, dietética,...)
- Holter 60 min
- Estudio analítico por química seca, HbA1c
- Biobanco sangre y orina
Y nuestro grupo ya demostró hace unos años, en grupos de casos y controles, en pacientes obesos, sin enfermedad pulmonar conocida, apareados en edad, IMC; donde muestra que la presencia de diabetes disminúa parámetros respiratorios.
FIRST RESULTS
(from sep'2015 to october'2016)
4,849 subjects

2515 (52%) (59 years)

2334 (48%) (55 years)

Hypertension 39%

Dyslipidemia 52%

Obesity 28%

Smokers 56%
HbA1c (n<5.7%)

- Normal: 74%
- Prediabetes (5.7 to < 6.5): 24%
- Diabetes (≥6.5%): 2%

ADA workgroup report, Diabetes Care (2009)

Unknown kidney disease

- Glomerular filtration rate < 60 ml/min: 14.6%

A New Equation to Estimate Glomerular Filtration Rate, Annals Internal Med (2009)
Forced siometry

Abnormal respiratory pattern: 11%

Geographic variations in prevalence and underdiagnosis of COPD: results of the IBERPOC multicentre epidemiological study, Chest (2000) → (9.1%)

Transcranial doppler

Abnormal in 9 patients (0.4%)
Electronic device to detect subclinical atrial fibrillation (60 minutes)

Introduced in the Bus of Health on October 2016: 352 patients

- 92% normals
- 1.4% known atrial fibrillation
- 6.6% (23) at high risk