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Effect of migration on risk of diabetes

Submission date
13/01/2014

Recruitment status
No longer recruiting

Registration date
06/02/2014

Overall study status
Completed

Last Edited
06/02/2014

Condition category
Nutritional, Metabolic, Endocrine

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
Type 2 diabetes is an increasing problem in sub-Saharian Africa: the prevalence and burden are rising very quickly as a consequence of major changes in lifestyle. In 2009 the International Diabetes Federation projected a 98% growth in the number of diabetic adults in this region. The main cause of diabetes in Africa, as everywhere, is impaired glucose tolerance (IGT), when blood glucose is raised beyond the normal range but it is not so high that you have diabetes. It is a consequence of urbanization and changes in diet. In Senegal (West Africa) it is already a great public health problem in the main city (Dakar) and its suburbs. In the villages, with a very different way of life, it is still unknown. In our hospital in Saint-Die (France) we have found that the Senegalese migrants (in majority coming from Fuuta, the northern region along the Senegal river) have a very high prevalence of IGT or type 2 diabetes. The aim of this study was to compare the prevalence of abnormal glucose status between the Senegalese migrants in France, especially around Saint-Die, and their relatives living in their villages in Fuuta. Our objective is to find out whether migration can lead to an increase of prevalence of IGT or type 2 diabetes among Senegalese migrants.

Who can participate?
We studied adults of both sexes, older than 18 years, who had accepted to be tested. The study involved two different populations. First, a study was conducted in Senegalese migrants in Saint-Die (SD group). Second, we studied the adult population of five villages in Fuuta (F group).

What does the study involve?
For all the selected participants we recorded the sex and age and measured height, weight, body mass index (BMI), waist/hip ratio and blood sugar levels.

What are the possible benefits and risks of participating?
There were no risks for the subjects. If we discovered a participant had type 2 diabetes the participant was informed of this so they could be treated.

Where is the study run from?
Centre Hospitalier Saint-Charles à Saint-Dié-des-Vosges (France).

When is the study starting and how long is it expected to run for?
The study began in November 2000 and finished in November 2001.

Who is funding the study?
Association pour la Prévention de lObésité et du Diabète en Déodatie (APODD) (Saint-Die, France).

Who in the main contact?
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Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
Diabetes FUUTA

Study information

Scientific Title
High frequency of abnormal glucose tolerance in Senegalese migrants: a new example of the heavy consequences of the nutritional transition

Acronym
Diabetes SD/F

Study objectives
Senegalese migrants have a higher risk of developing diabetes mellitus than their relatives remaining in their birth country. The main reason seems to be the nutritional transition (diet and sedentarity).

We compared the prevalence of abnormal glucose status between Senegalese migrants and their relatives staying in their villages in Fuuta (a region in the Northern part of Senegal).

Ethics approval required
Old ethics approval format

Ethics approval(s)
Ethics Commitee of Centre Hospitalier Saint-Charles à Saint-Dié-des-Vosges, June 2000

Study design
Observational cohort study

Primary study design
Observational

Study type(s)
Screening

Health condition(s) or problem(s) studied
Diabetes, migration, public health

Interventions
Study on Senegalese adults living in Saint-Die (France) and a representative sample of their relatives in five villages in Fuuta (Senegal). For all the selected subjects we measured four anthropometric parameters (height, weight, BMI and waist/hip ratio) and fasting capillary glycaemia. We stay for one day in each village.

Intervention Type
Other

Phase
Not Applicable

Primary outcome(s)
1. Anthropometric measures (height, weight, BMI and waist/hip ratio)
2. Blood capillary glucose, measured using a Glucotrend device (Lab. Boehringer)

All of the measures were taken at baseline in one day.

Key secondary outcome(s))
N/A

Completion date
01/11/2001

Eligibility

Key inclusion criteria
1. All Senegalese migrants living in Saint-Die (France)
2. A representative sample of their relatives in five villages in Fuuta (Senegal)
3. Adults between 18 and 75 years

Participant type(s)
Patient

Healthy volunteers allowed

No

Age group
Adult

Lower age limit
18 years

Sex
All

Key exclusion criteria
1. Pregnancy
2. Illness

Date of first enrolment
01/11/2000

Date of final enrolment
01/11/2001

Locations

Countries of recruitment
France

Senegal

Study participating centre
Service de Médecine A
Saint-Dié-des-Vosges
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88100

Sponsor information

Organisation
Centre Hospitalier Saint-Charles à Saint-Dié-des-Vosges (France)

ROR
https://ror.org/000tm9s39

Funder(s)

Funder type
Hospital/treatment centre

Funder Name
Centre Hospitalier Saint-Charles à Saint-Dié-des-Vosges (France)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration