

# CIRCE - Case-Control Study on Environmental, Metabolic and Nutritional Factors of Hepatocellular Carcinoma in Cirrhotic Patients

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| General  |  |
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| Identification   |  |
| Detailed name  | Case-Control Study on Environmental, Metabolic and Nutritional Factors of Hepatocellular Carcinoma in Cirrhotic Patients |
| Sign or acronym  | CIRCE  |
| CNIL registration number, number and date of CPP agreement, AFSSAPS (French Health Products Safety Agency) authorisation | CNIL, CPP  |
| General Aspects  |  |
| Medical area   | Gastroenterology et hepatology   |
| Health determinants  | Climate<br>Geography<br>Lifestyle and behavior<br>Nutrition<br>Occupation<br>Pollution                                   |
| Keywords   | carcinogenesis, cirrhosis, HCC, nutrition, physical activity   |
| Scientific investigator(s) (Contact)   |  |
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|--|--|
| Organization   | CHU de   |
| Collaborations   |  |
| Participation in projects, networks and consortia                      | Yes  |
| Details  | ProSpec study (proteomics)   |
| Funding  |  |
| Funding status   | Public   |
| Details  | Dijon UHC  |
| Governance of the database   |  |
| Sponsor(s) or organisation(s) responsible                              | CHU de Dijon   |
| Organisation status  | Public   |
| Additional contact   |  |
| Main features  |  |
| Type of database   |  |
| Type of database   | Study databases  |
| Study databases (details)  | Case control study   |
| Database recruitment is carried out by an intermediary                 | A selection of health institutions and services  |
| Database recruitment is carried out as part of an interventional study | No   |
| Database objective   |  |
| Main objective   | <p>Little data are available on carcinogenesis mechanisms in cirrhotic patients and associated risk factors. This clinical, biochemical and molecular case-control study may be relevant to the understanding of nutrition, physical activity, metabolic syndrome and lipids (CiRCE Lip's study) in the development of hepatocellular carcinoma (HCC), regardless of the aetiology of the underlying cirrhosis.</p> <p>It will open new perspectives in HCC prevention through dietary counselling and metabolic</p> |

syndrome therapeutics and identify predictive HCC markers in cirrhotic patients (CiRCE ProSpec study), as well as new therapeutic targets for the treatment of cancer with challenging prognosis.

#### Inclusion criteria

- Aged 35 or over;
- Informed consent.

#### Cirrhotic cases:

- Patients with hepatocellular carcinoma cases from liver cirrhosis, regardless of the cause of the cirrhosis.
- Criteria for hepatocellular carcinoma diagnosis: European Association for Study of the Liver (EASL); Focal hepatic lesions greater or equal to 2 cm in diameter:
  - Alpha-fetoprotein (AFP) below 400 ng/ml: nodules must be identified by at least two morphological examinations (abdominal ultrasound, angiography, CT or MRI);
  - AFP over 400 ng/ml: lesion seen in a single imaging procedure;

#### Focal hepatic lesions less 2 cm in diameter:

- Lesions 1 to 2 cm in diameter: use of fine-needle aspiration with biopsy;
- Lesions less than 1 cm: serial abdominal ultrasound every 3 months until the lesion exceeds 1 cm in size so that biopsy becomes possible. These cases will be included at time of diagnosis.

#### Cirrhotic control patients:

- Histological confirmation by liver biopsy or in the absence of biopsy:
- In patients with no portal thrombosis at Doppler imaging, on the presence of portal hypertension confirmed by biological, morphological, hepatic venous pressure measurements or upper endoscopy.
- In patients with portal thrombosis, on the presence of portal hypertension associated with clinical or morphological signs of cirrhosis.
- Biological signs of hepatocellular failure.
- Lack of HCC at baseline through imaging examinations.

#### Exclusion criteria:

- Other cancer;
- HIV infection;
- Major somatic or psychiatric illness not compatible

for inclusion in the study.

1,179 cirrhotic patients with (436 cases) or without (743 controls) HCC were enrolled in the CiRCE study.

| Population type                              |  |
|--|--|
| Age  | Adulthood (25 to 44 years)<br>Adulthood (45 to 64 years)<br>Elderly (65 to 79 years) |
| Population covered                           | Sick population  |
| Gender                                       | Male<br>Woman  |
| Geography area                               | National   |
| Detail of the geography area                 | Besançon, Dijon, Metz, Reims, Strasbourg and Vandœuvre-lès-Nancy.                    |
| Data collection                              |  |
| Dates  |  |
| Date of first collection (YYYY or MM/YYYY)   | 06/2008  |
| Size of the database                         |  |
| Size of the database (number of individuals) | [1000-10 000[ individuals  |
| Details of the number of individuals         | 1,179: - 436 cas/cases or without - 743 témoins/controls                             |
| Data   |  |
| Database activity                            | Data collection completed  |
| Type of data collected                       | Clinical data<br>Declarative data<br>Paraclinical data<br>Biological data            |
| Clinical data (detail)                       | Medical registration   |
| Details of collected clinical data           | --   |
| Declarative data (detail)                    | Face to face interview   |

|   |  |
|---|--|
| Details of collected declarative data   | --   |
| Paraclinical data (detail)  | Ultrasound, CT, MRI.   |
| Biological data (detail)  | Dosage of vitamin B12 and folates.   |
| Presence of a biobank   | Yes  |
| Contents of biobank   | Serum<br>Plasma<br>DNA   |
| Details of biobank content  | Serum, plasma, DNA.  |
| Health parameters studied   | Health event/morbidity   |
| Procedures  |  |
| Participant monitoring  | No   |
| Links to administrative sources   | No   |
| Promotion and access  |  |
| Promotion   |  |
| Access  |  |
| Terms of data access (charter for data provision, format of data, availability delay) | Through publications. Contact the scientist in charge for further information. |
| Access to aggregated data   | Access on specific project only  |
| Access to individual data   | Access on specific project only  |