

What's new about the ETIOSARC study: A French multicentre case-control study on environmental aetiology of sarcomas

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Introduction

Sarcomas

- Rare tumours of connective tissues (<1% of adult cancers)
- Multiple histological subtypes (>80 subtypes)
- Heterogeneous data in incidence trends

Scientific knowledge about environmental aetiology (Edwards 2021, Inserm 2021)

- Identified risk factors
 - Ionizing radiations
 - Vinyl chloride
 - Dioxins (high doses)
- Suspected risk factors
 - Dioxins (low doses)
 - Pesticides (chlorophenols, phenoxyherbicides)
- Main limits in the current studies
 - Methodological biases in the diagnosis of sarcomas
 - Low statistical power

Ideal framework in France

- Exhaustive sarcoma registration by French cancer registries (FRANCIM)
- Systematic review by national expert networks (Netsarc +) to confirm the diagnosis

Objective

To investigate the role of lifestyle, environmental and occupational factors in the occurrence of sarcomas among adults

Methods

Cases

- Incident patients diagnosis with a first histologically confirmed sarcoma since 2019
- Between 18 and 80 years old
- Residents of one of the 6 study geographical areas

Controls

- 2 controls per case randomly selected from electoral rolls
- Individually matched by sex, age (5 years group) and districts of residence

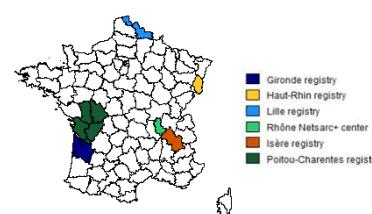


Figure 1: Geographical areas participating in the ETIOSARC study

Data collection



Results

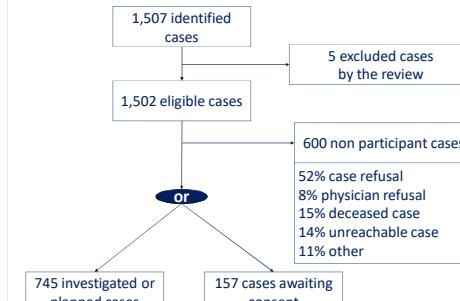


Figure 2: Case inclusion flow chart

> Participation rate: 55%

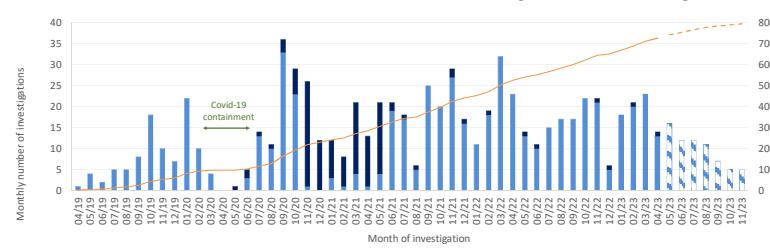


Figure 3: Diagnosis comparison between participating and non-participating cases

> Low variation in the sarcoma profile between investigated and non-investigated cases

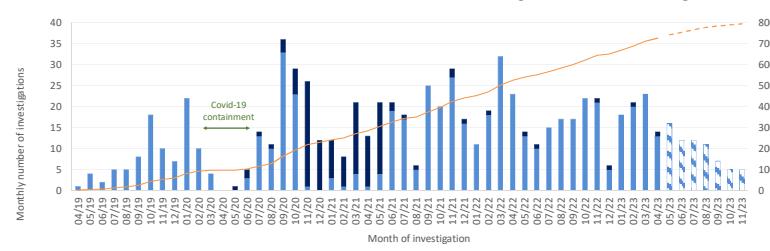


Figure 4: Monthly and cumulative investigations of cases

> 726 investigated cases and 794 estimated

Characteristics of investigated cases (N=726)

- Soft tissue: 66% - viscera: 24% - bone: 10%
- Men: 51%
- Median age: 59 years old
- Histological review: 81%
- Saliva sample: 91%

Control recruitment

- 1,073 investigated or planned controls
- Participation rate: 10%
- 17 invitations to get 2 controls per case

Conclusion / Perspectives

ETIOSARC : 1st French multicentre case-control study on environmental and occupational aetiology

- Good acceptability on the part of cases and controls
- Efficient functional organization
- COVID-19: survey adaptability

First aetiological analyses planned

- Occupations and industries
- Suspected factors for sarcoma : pesticides, vinyl chloride, dioxins
- Analyses by major histological types and location