ESPE European Society for Paediatric Endocrinology
ESPE DUBLIN 18-20 September 2014

D3-1008

Long-term impact of childhood-onset type 1 diabetes: social life, quality of life, sexuality

Hélène Mellerio[1], Sophie Guilmin-Crépon[1], Paul Jacquin[2], Claire Levy-Marchal[1], Corinne Alberti[1]
[1] Inserm, ECEVE U1123 et CIC-EC, CIC 1426, Hôpital R. Debré, Paris;
[2] Service de Médecine de l'adolescent, Hôpital R. Debré, Paris;
helene.mellerio@inserm.fr

Context

- ✓Type 1 diabetes (T1D) in Western Countries : 9,5 to >60 /100 00/yr.
- ✓Increased incidence in Europe : +3,9%/yr (+5,4% among very young).
- ✓Health: «state of complete physical, mental and social well-being » (WHO 1946), with a reciprocal causal relationship between health and social vulnerabilities.
- ✓Little is known about long-term social outcome T1D children.

Objective

To document the impact at adult age of childhood-onset T1D on social life, quality of life (QOL) and sexuality

Methods

National Register of T1D incidence
- Age ≥ 18yrs
- T1D diagnosis ≤ 14yrs

n=904

- Last news ≤12 mths
- Valid mail adress
- → *Questionnaire sent*

n=721

n=388

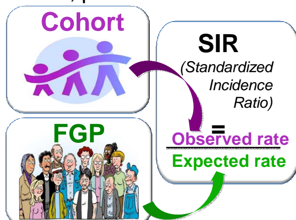
Response rate = 54%

Caracteristics of the 388 participants	Mean ± SD	Min; Max
Age at time of survey (yrs)	28.5 ± 3.1	(23.4; 36.0)
Age at diagnosis (yrs)	11.5 ± 2.5	(3.5; 15.5)
T1D duration	17.0 ± 2.7	(11.1; 21.4)
Sex	222 women (57.2%)	
≥ 1 vascular complication	136 (35.1%)	

✓**Auto-questionnaire** (198 items), regarding social and professional life, medical characteristics, QoL (SF-36 MFI-20), sexuality and transition pediatric / adult healthcare.

✓**Statistical Analyses**

- **Reference data for French general population (FGP),** predominantly provided by the French National Institute of Statistical and Economic Studies (INSEE).
- **Indirect Standardisation (SIR)** according to age, sex, period, +/- educational level, marital life, parental educational level.



- **Z-scores** matched for age, sex, period
- **Multivariate regression models**

Results

Social Life

- **FAMILIAL LIFE**
  Marital life: 63%
  Single life: 22%
  Living with parent(s):15%
  In case of parental project 72% had child(ren)
- **DRIVING LICENCE= PGF**
- **HOLIDAYS WITHIN 12 mths = FGP**

- **FECONDITY RATE <FGP:** 0.58 vs 0.82 (p<0.01)
- **DICRIMINATION because of disease/disability:** 33.1 vs 5.9 (SIR=5.6(4.6;6.6)
- **RENOUCEMENT TO SPORT because of T1D:** 1 in 6; 2/3 cases : for non-forbidden sport…

Professional life

- **EDUCATION LEVEL**
  ≥ Baccalaureate (high school diploma) ajusted on age, sex, period and maternal diploma:
  69% vs 57% (SIR=1.2(1.1;1.4))
- **LABOR MARKET**
  Unemployment 12% vs 10% (SIR=1.3 (0.9;1.7))
  Professional occupation, employment contrats, half-time contrats = FGP

- **ACCESS TO HOMEOWNERSHIP:**
  26% are homeowner vs 36% (RSI=0.7(0.6;0.9))

	T1D declared	T1D not declared	p
Loan acceptance	94.4%	84.6%	0.19
Restrictions, surprimes	83.5%	9.1%	<0.01

- **INCOMES** <1000€/mths in 28% participants (FGP≈10%)

Risk behaviors

- **DAILY SMOKERS = FGP:**
  37% vs 40% (SIR=0.9 (0.8;1.1))
- **EXPERIENCE OF CANNABIS < FGP:**
  18% vs 36% (SIR=0.5 (0.4;0.7))

- **DAILY ALCOHOL INTAKE>>FGP:**
  Men: 24% vs 7% (SIR=3.3(2.4;4.5))
  Women: 7% vs 1%(SIR=6.5(4.6;13.0))
  … but still under recommandations (ADA):
  Men 7% > 2glasses/day
  Women: 1% > 1glass/day

QOL, sexuality

- **PHYSICAL COMPOSITE SCORE (SF36) ≈ FGP:** -0.2 SD (-0.3;-0.1)
  → *Predictive factors*: T1D complication, fatigue (MFI-20), renouncement to sport, educational level
- **SEXUALITY INACTIVITY**= FGP
- **SEXUAL DYSFUNCTION** = FGP

- **MENTAL COMPOSITE SOCRE (SF36)<<FGP:** -0.7 SD (-0.8;-0.6)
  → *predictive factors:* renoucement to sport, fatigue (MFI-20), transition feelings, sexual insatisfaction
- **HIGH RATE OF SEXUAL DISSFACTIFACTION:**
  Very dissatisfied 7% vs 4% (SIR=1.9(1.2;2.8))
  Rather dissatisfied (SIR=2.0(1.5;2.6))

Take-home messages

✓ **Satisfying social insertion** of young adults with T1D
…but alteration of mental scores of HRQOL, frequent dissatisfaction with sexuality, and increased alcohol consumption suggest a **strong impact of disease on morale,** especially in women:

- → ***to adress the issues of alcohol use and sexuality***
- → ***to encourage practice of physical activity***

Assistance Publique Hôpitaux de Paris – Hôpital Robert Debré
eceve
Inserm
Fondation Pfizer pour la santé de l'enfant et de l'adolescent