

Natural history of lateral epicondylitis among French Workers

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Context

- Prevalence of lateral epicondylitis :
 - 1-3% in general population
 - 1-29% in working population
- Risk factors :
 - Age
 - Physical load factors (high force combined with elbow movements, repetitive tasks, awkward posture,...)
 - Psychosocial factors (low social support, low job control,...)
- Prognosis :
 - Self-limiting disorder : 50% with medical treatment
 - 80% report improvement within 1 year

Objectives

- Describe the evolution of elbow pain and lateral epicondylitis in a large population of French workers
- Explore few prognosis factors

Data : The “Pays de la Loire” study

2002-2005

- 3,710 workers included

Physical examinations by occupational health physicians

- Elbow pain and lateral epicondylitis

Self-administered questionnaire

- Personal factors
- Physical work-related factors
- Psychosocial factors

2007-2010

- 1,611 (43.4%) followed

Physical examinations by occupational health physicians

- Elbow pain and lateral epicondylitis

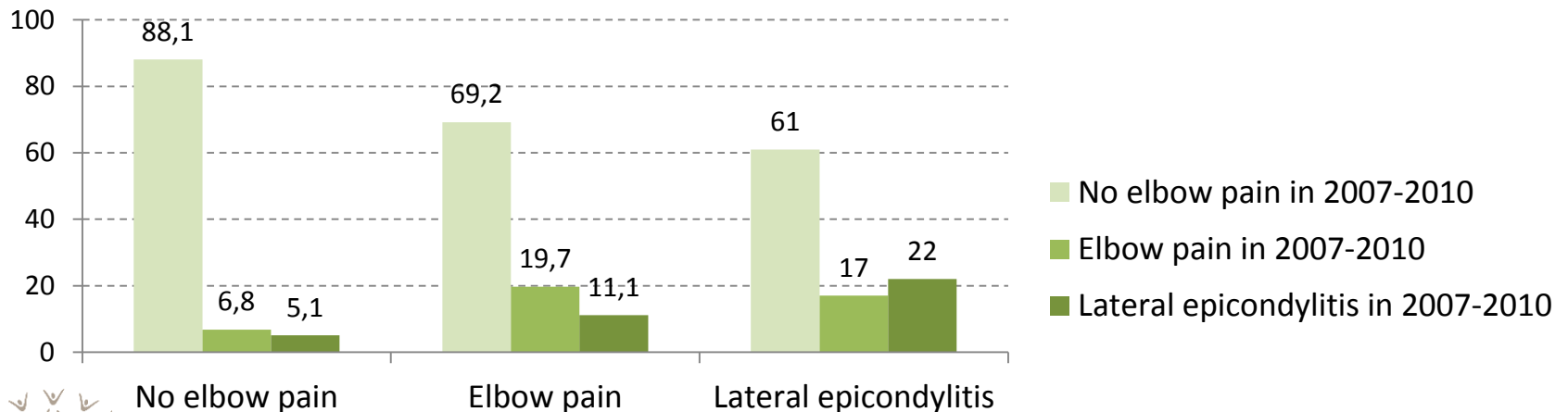
Methods

- Lateral epicondylitis in 3 classes :
 - ‘Lateral epicondylitis’
 - Lateral epicondylitis in physical OR
 - Pain around the lateral epicondyle > 4 days in the last 12 months
 - ‘Elbow pain’
 - Others elbow pain
 - No elbow pain
- Methods :
 - Description of evolution between 2002-2005 and 2007-2010
 - Association between initial characteristics and recurrence of lateral epicondylitis (Chi-square tests)

Results

- Prevalence in 2002-2005
 - 100 (6.2%) lateral epicondylitis
 - 117 (7.3%) elbow pain
 - 1394 (86.5%) without elbow pain
- Overall, 61% had no elbow symptoms at all

Evolution in 2007-2010 according the status in 2002-2005



Results : Among workers with elbow pain/lateral epicondylitis in 2002-2004

Factors in 2002-2005	Status in 2007-2010		p**
	No elbow pain	Elbow pain or Lateral epicondylitis	
Sex			0.5
Men	79 (55.6%)	45 (60.00%)	
Women	63 (44.4%)	30 (40.00%)	
Age (in years)			0.4
<30	17 (12.0%)	5 (6.7%)	
30-44	62 (43.7%)	38 (50.7%)	
>44	63 (44.4%)	32 (42.7%)	
Socio-professional category			0.6
Executives	42 (29.6%)	16 (21.3%)	
Employees	32 (22.5%)	19 (25.3%)	
Skilled workers	40 (28.2%)	25 (33.3%)	
Unskilled workers	28 (19.7%)	15 (20.0%)	
High perceived physical exertion* +1 elbow movement			<.01
Non	90 (63.4%)	33 (44.0%)	
Oui	52 (36.6%)	42 (56.0%)	
Total	142	75	

* Borg scale >13/20 + elbow flexion/extension or extreme wrist bending (> 2 hours/day)

** P-value of Chi-square test

Results : Among workers with lateral epicondylitis in 2002-2004

Factors in 2002-2005	Status in 2007-2010			p**
	No elbow pain	Elbow pain only	Lateral epicondylitis	
Sex				0.4
Men	35 (57.4%)	10 (58.8%)	15 (68.2%)	
Women	26 (42.6%)	7 (41.2%)	7 (31.8%)	
Age (in years)				0.7
<30	6 (9.8%)	1 (5.9%)	1 (4.5%)	
30-44	21 (34.4%)	8 (47.1%)	7 (31.8%)	
>44	34 (55.7%)	8 (47.1%)	14 (63.6%)	
Socio-professional category				0.8
Executives	20 (32.8%)	3 (17.6%)	6 (27.3%)	
Employees	11 (18.0%)	6 (35.3%)	3 (13.6%)	
Skilled workers	16 (26.2%)	2 (11.8%)	8 (36.4%)	
Unskilled workers	14 (22.9%)	6 (35.3%)	5 (22.7%)	
High perceived physical exertion* +1 elbow movement*				<.01
Non	35 (57.4%)	7 (41.2%)	5 (22.7%)	
Oui	26 (42.6%)	10 (58.8%)	17 (77.3%)	
Total	61	17	22	

* Borg scale >13/20 + elbow flexion/extension or extreme wrist bending (> 2 hours/day)

** P-value of Chi-square test

Conclusion

- Prevalence rate : 6%
 - Recovery rate high (60-70%)
 - Prognosis factor :
 - High perceived physical exertion and > 1 elbow movement
- ⇒ Importance of preventing adverse exposure for prevention but also for return to work

Thank you

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