Lumbar disc surgery: is it only a sentinel event of spinal disease?

Natacha Fouquet, E Francart, Aline Ramond-Roquin, E. Chazelle, Audrey Petit, S Fleuret, A. Descatha, Y. Roquelaure

To cite this version:
Natacha Fouquet, E Francart, Aline Ramond-Roquin, E. Chazelle, Audrey Petit, et al.. Lumbar disc surgery: is it only a sentinel event of spinal disease?. PREMUS 2019, Sep 2019, Bologne, Italy. hal-02483197

HAL Id: hal-02483197
https://univ-angers.hal.science/hal-02483197
Submitted on 18 Feb 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire HAL, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.
Lumbar disc surgery: is it only a sentinel event of spinal disease?

BACKGROUND

Lumbar disc-related disorders are a major cause of work-related osteo-articular morbidity. Lumbar disc surgery (LDS) was chosen as the sentinel event to implement a system for the epidemiological surveillance of these disorders. The aim of this study was to describe the variations in the incidence of LDS and the influence of socioeconomic factors and of factors related to healthcare provision on this incidence.

METHODS

LDS was identified in the hospital database of the Pays-de-la-Loire region. A total of 16,267 LDS cases was detected from 7 codes for surgical acts between 2007 and 2010. The mean annual incidence rates of LDS were calculated by considering the French National Institute of Statistics and Economic Studies (INSEE) census of 2008 for each of the 137 regional areas (RAs) in the region. In order to determine classes of RAs, a main component analysis, followed by a hierarchical bottom-up classification, was carried out on the basis of socioeconomic factors (1) and factors related to healthcare provision (2): 1. proportions of the population aged 60 and over and 25 to 59, median income per unit of consumption, unemployment and employment rates, precarious employment rate, proportions of professionals, technicians, associate professionals and blue-collar workers, proportions of employment in construction and agriculture; 2. Local Potential Accessibilities (LPA) to general practitioners (GPs) and physiotherapists, density of rheumatologists, travel time to the nearest center for spinal hospitalization, rates of hospitalization in medicine services.

RESULTS

The mean incidence rate of LDS was 1.6‰ (standard deviation = 0.3) and varied widely according to RA. There were three types of RA (table and figure). The first category of RAs (in gray in the figure) encompassed the large regional cities and coastal RAs, with a rich supply of healthcare, a high proportion of managers and higher intellectual professions, but also a higher unemployment rate, coupled with a high incidence of LDS.

The RAs located around the large cities constituted the second category (in orange in the figure), with a smaller proportion of people over 60, and higher employment rates, associated with a low incidence of LDS.

DISCUSSION/CONCLUSION

This study suggests a link between the incidence of LDS and criteria other than strictly medical. Thus, the LDS indicator may be a health tracer that may also reflect the socio-economic fabric that could be useful for the implementation of policies to tackle social and territorial health inequalities.