

Epidemiological data on listeriosis in Portugal:2003 - 2008

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Introduction

Listeria monocytogenes is a ubiquitous Gram-positive facultative intracellular food-borne pathogen that causes invasive listeriosis that is an uncommon infection.

There are some high-risk groups of individuals, which include the elderly, immunocompromised individuals, pregnant women and their neonates.

Because of its clinical severity and the high rate of fatality, listeriosis is an infection of considerable public health concern.

The invasive illness, which clinical manifestations include meningitis, encephalitis, late-term spontaneous abortion, and septicemia, although rare has a high fatality rate, between 20 and 30 %. In Portugal the available data of cases of listeriosis are limited as it is not a notifiable disease and is likely to be under-reported.

The aim of work was collect information about listeriosis in Portugal between 2003 and 2008. Health care units participate in this project in a voluntary form.

Materials and Methods

Data collection on human listeriosis

Data were obtained from the Clinical Pathology Services of hospitals and the National Institute of Health's delegation in Porto. Personal contacts were made from October 2003. Retrospective identification of cases of listeriosis was requested from each hospital.

The contact element in each hospital was requested to send a form containing the following information, regarding each case: year of isolation, age and sex of the patient, predisposing risk factors, the tissue origin of the isolate and the progression of the disease.

Annual incidence of *Listeria monocytogenes* and case fatality rate

For the purposes of this study a case of listeriosis was defined as when *L. monocytogenes* was isolated from a normally sterile site (usually blood or cerebrospinal fluid) and clinical symptoms were consistent with a systemic infection with this organism.

Incidence of the disease was calculated dividing the number of cases that occurred during one year by the estimated average Portuguese population obtained from Instituto Nacional de Estatística, and expressed as number of cases per million inhabitants.

Case fatality rate was calculated dividing the number of persons that died by the total number of cases and was expressed in percentage.

Results

Table 1. Incidence of listeriosis in Portugal 2003-2008 and death rate associated

Year	Nº of cases	Incidence ⁽¹⁾	Death rate % ⁽²⁾	Death rate % ⁽³⁾
2003	13	1.4	15.4	22.2
2004	11	1.1	36.4	80.0
2005	13	1.3	7.7	12.5
2006	19	1.9	5.3	33.3
2007	24	2.3	12.5	42.9
2008	27	2.8	22.2	33.3

(1) Number of cases/million inhabitants

(2) Calculated with all recorded cases

(3) Calculated with cases that have a complete information

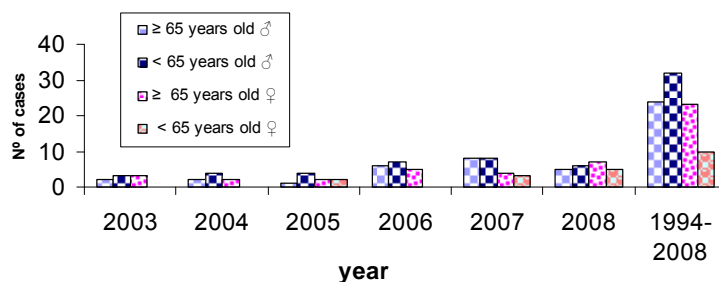


Figure 1. Distribution of non-maternal cases of listeriosis by gender and age between 2003 and 2008

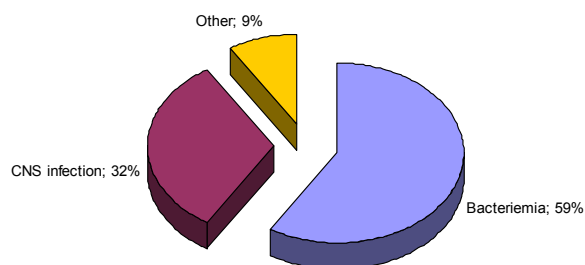


Figure 2. Pathologies associated with the non-maternal cases of listeriosis

Conclusions

The incidence of listeriosis in Portugal has been increased in the last years. However, is one of the lower than the European notification rate and similar to countries like Austria, Estonia, Latvia, Slovakia and Spain.

A predominance of cases in men was verified. However 57% of individuals were younger than 65 years old. Predominantly the microorganism was isolated from blood.

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