
PAPER

***Listeria monocytogenes* in foods: the French position International Food Safety Conference. *Listeria*: the state of the science – 29–30 June 1995 – Rome, Italy**

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*When the French regulation related to the microbiological criteria for food of animal origin was set up in 1979 (21st December), *Listeria monocytogenes* was not a microorganism of concern while food was not yet incriminated in Listeriosis cases or outbreaks.*

However, when the fact that food was responsible in many cases for Listeriosis, it was widely recognised, especially during the outbreaks in France in 1992 and 1993, that the different departments involved (Health, Agriculture, Frauds prevention) should meet in order to take a common position.

The instructions and measures to be taken, which originate from those meetings will be presented. Nevertheless, we always have to consider several facts:

- *the food origin has been demonstrated.*
- *Listeriosis is a serious illness (high lethality); so, as much as possible must be undertaken to limit the risks.*

It is also necessary to take the following into account:

- *L. monocytogenes is normally present in low numbers – and in competition with many other microorganisms – usually in a stressed state, but the fact that it may recover after a long lag phase has to be taken into consideration, and the presence of one pathogenic microorganism in a given food does not mean that it will lead to a disease.*
- *However, the minimal infection dose may vary accordingly with the immune state of people.*

It should also be stated that the 'French position is that of today, and it may change accordingly with the improvement of knowledge' – and also, of course with international discussions. Copyright © 1996 Published by Elsevier Science Ltd.

INTRODUCTION

Two instructions will be examined shortly:

- That of the 'Conseil supérieur d'hygiène publique de France' published in September 1992.
- Instructions from the Ministry of Agriculture, Fisheries and Foods (1993).

CONSEIL SUPÉRIEUR D'HYGIÈNE PUBLIQUE DE FRANCE (SEPTEMBER 1992)

The considerations are as follows:

- while considering the risk of Listeriosis for some consumers, we have to recognise that it is possible to guarantee *Listeria monocytogenes* free raw products;
- one exception consists in products heated in their final wrapping, or aseptically conditioned after heating;
- so, it is necessary to set up strict prevention and information measures in order to try to nullify *Listeria monocytogenes* in foods;
- everybody is concerned – at each stage of food production, up to the consumer;
- however, when it does not seem possible to avoid contamination, a tolerance of 100 *Listeria monocytogenes*/g of product is acceptable.

THE INSTRUCTIONS OF THE MINISTRY OF AGRICULTURE, FISHERIES AND FOOD TAKE THE ABOVE MENTIONED COMMENTS INTO CONSIDERATION

They describe:

- the aim of the food microbiological controls concerning *Listeria monocytogenes*;
- what to do when isolating a non-epidemic *Listeria monocytogenes* strain;
- what to do when isolating an epidemic strain in a food implicated in one or more Listeriosis cases;
- what to do when isolating an epidemic strain in a food which is not involved in Listeriosis cases.

AIM OF THE CONTROLS

The objective is to obtain *L. monocytogenes* free foods (no *L. monocytogenes* found in 25 g). However, when that is impossible, one must try to obtain the lowest possible level.

For products 'at risk', one must look systematically to *L. monocytogenes* (which have to be added to other microorganisms investigated according to the regulation 21 December, 1979) – the same investigations are requested for auto-controls.

WHAT TO DO WHEN DETECTING A NON EPIDEMIC *L. MONOCYTOGENE* STRAIN IN A FOOD (OFFICIAL CONTROLS)

- One has to:
- (i) look carefully at the classification of food per category;
 - (ii) identify and set up intervention measures;
 - (iii) follow guidelines for intervention.

But, of course, those guidelines may be modified following new epidemiological data, and according to realistic possibilities of intervention.

(i) Foods are classified into 3 groups:

- (a) food for populations 'at risk';
- (b) foods heated in their wrapping or aseptically conditioned after treatment;
- (c) raw foods or food susceptible to re-contamination after treatment.

In those conditions the guidelines are as follows:

WHAT TO DO WHEN ISOLATING *LISTERIA MONOCYTOGENES* STRAIN, BELONGING TO EPIDEMIC PHAGOVAR IN A FOOD WHICH HAS BEEN IMPLICATED IN ONE OR MORE PATHOLOGICAL CASES IN HUMANS

The following measures have to be taken within 24 h following the knowledge of the result:

- corrective measures and, if necessary, recall of foods which are still on the market and may be incriminated in Listeriosis cases;
- careful examination of the results of official controls and auto controls;
- official control for all foods being prepared;
- cessation of processing as soon as possible during 24–48 h for cleaning and disinfection. The efficacy of the disinfection will be checked;
- eventually, changes in the modalities used for heat treatment (time and temperature);
- before re-marketing the products, one has to be sure that no *L. monocytogenes* can be found (and not before 3 weeks from the time cleaning and disinfection measures have been applied thoroughly).

WHAT TO DO WHEN ISOLATING A *LISTERIA MONOCYTOGENES* STRAIN (EPIDEMIC PHAGOVAR) IN A FOOD WHICH HAS NOT BEEN IMPLICATED IN HUMAN CASE(S)

In this case, similar measures to those previously described have to be applied, but, of course, the

specific situation of the plant has to be taken into consideration.

CONCLUSION

As a conclusion and as it has been said previously, the recommendations described above may change according to different improvements. At the moment, they only seem to be realistic.

However, one has to emphasize different points:

- there is a necessity for improving the technical and scientific knowledge (rapid methods for detection,

development of enumeration techniques – better knowledge of microbial ecology in foods – better knowledge of strains, and also of biofilms),

- there is also a necessity for better controls – of applying HACCP in improved conditions – and to develop risk analysis and finally, the French position is of course that we have to be realistic, and accept some temporary positions.

However, everything possible must be carried out in order to lower the level of contamination to as low as possible and the aim (which appears to be unrealistic at the moment for raw foods) is to obtain *L. monocytogenes* free products.