

A COMMUNITY OUTBREAK OF LEGIONNAIRES DISEASE, MONTPELLIER, FRANCE, 2003

Franke F¹, Allié MP², Claudet J², Jarraud S³, Bourdiol M², Armengaud A¹, Laporte L², Moyano MB², Reyrolle M³, Campese C⁴, Malfait P¹.

¹ *Cellule interrégionale d'épidémiologie Sud ; florian.franke@sante.gouv.fr*

² *Direction départementale des affaires sanitaires et sociales de l'Hérault.*

³ *Centre national de référence des Legionella de Lyon.*

⁴ *Institut de veille sanitaire.*

Background

Twelve cases of legionellosis were notified to the French health authorities (Ddass) of the département of Hérault between 31 July and 4 August. Environmental and epidemiological investigations were carried out to describe the outbreak and identify potential risks factors.

Methods

Notified cases were traced and interviewed, using a standard questionnaire. General practitioners within the area, other Ddass in France and the European working group for Legionella infections (Ewgli), were asked for immediate notification of case who spent at least one day in the département. Environmental investigation checked all potential contamination sources within the area, including cooling towers (CTs). Human and environmental strains were sent to the National Reference Centre (CNR) of legionella for identification.

Results

Thirty-one cases of legionellosis (*legionella pneumophila* serogroup 1 - Lp1), with onset between 15 July and 12 August 2003, were identified. Four cases have died. The median age of patients was 55 years: Coming to the city centre of Montpellier within the ten days before the onset of the disease was the only common factor for all cases. Eight of them spent only one day in this area, the 21 July ("unique resident" cases). Strains of legionella among eight patients were identical.

Among the different environmental sources of contamination studied in Montpellier, several contaminated CTs were identified. Some of them showed concentration levels higher than 10⁶ UFC/l. Eleven different strains of Lp1 were identified by the CNR, but none identical to the human strain.

Conclusion

Despite the absence of biological evidence, epidemiological investigation suggested contamination by one or more CTs. The Ddass took rapid measures so as to stop the outbreak, because of strong collaboration between the different partners, high reactivity of the Ddass and analysis focused on "unique resident" cases. In order to take into account environmental legionella risk related to CTs, improvement of legislation is recommended.