

All infants were brought in due to respiratory symptoms; only two had fever. Three had a history of conjunctivitis in the second week of life, although *C. trachomatis* infection was not suspected, and therefore they did not receive suitable treatment. In all cases, a chest X-ray was pathological, with hyperinflation and interstitial infiltrates. Notably, there were high percentages of eosinophilia (5/8) and hypergammaglobulinaemia (4/4).

All patients were admitted, and the median duration of hospitalisation was 9.5 days (IQR: 6–23). Six patients required oxygen therapy for a mean of 7.5 days (IQR: 1–18). High-flow systems were used in three patients. Two infants required IC admission for respiratory failure: one needed non-invasive ventilation and the other needed invasive mechanical ventilation for two days.

The microbiological diagnosis was made by polymerase chain reaction (BD maxTM multiplex PCR) in nasopharyngeal aspirate (positive in seven cases) and in urine (positive in three of the four cases for which it was ordered). In two cases with associated conjunctivitis, conjunctival PCR was performed, and was positive in one case.

All patients received treatment with an oral macrolide, following a favourable course. The mothers and their partners were referred to the gynaecology clinic for evaluation.

In developed countries, *C. trachomatis* infection is the most prevalent sexually transmitted disease.⁴ It is an underdiagnosed disease in pregnant women because it usually follows an asymptomatic course,^{1,2} which can lead to a delay in diagnosis for the child and a need for hospital admission.

Perinatal infection causes colonisation of the pharynx, rectum and genital tract of newborns. In 30%–50% of colonised neonates, it causes conjunctivitis in the first two weeks of life.⁵ It is important to be attentive to this first sign, which is usually self-limiting, to make a correct diagnosis by PCR in conjunctival discharge.

Without suitable treatment, these patients can develop a nasopharyngeal infection, which in 30% of cases can progress to pneumonia.⁶ This usually presents with prolonged hypoxaemia and, in some cases, a need for respiratory support and IC admission.^{3,7,8} In our series, two patients were transferred to IC for severe respiratory failure. In 1985, Attenburrow and Barker reported five cases of severe neonatal pneumonia due to *C. trachomatis* in premature infants (25–32 weeks); all required mechanical ventilation, and one died.⁸

We agree with Piñeiro et al.⁹ on the need to implement screening programmes for *C. trachomatis* in pregnant women 15–25 years of age and in women with risk factors for infection. In our series,

75% of the mothers were under 30 years of age and many were immigrants from areas with a high prevalence of the disease. In areas where screening is not implemented, it should be suspected in infants under 2 months of age with slowly progressing bronchiolitis or cough with pertussis-like features, a history of previous conjunctivitis, eosinophilia and hypergammaglobulinaemia. Early diagnosis and treatment in the infant can prevent hospital admission and associated complications.

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Reply to «*Chlamydia trachomatis* pneumonia: An underdiagnosed and potentially severe disease»[☆]

Respuesta a «Neumonitis por *Chlamydia trachomatis*: una enfermedad infradiagnosticada y potencialmente grave»

Dear Editor,

After carefully reading the letter to the editor from Dr Dorado et al.¹ entitled “*Chlamydia trachomatis* pneumonia: An underdiag-

nosed and potentially severe disease”, we would like to make the following comments.

First of all, we would like to thank Dr Dorado and her collaborators for the interest shown in our article and the great review they conducted on *Chlamydia trachomatis* pneumonitis in infants in our setting. Their experience is consistent with our data in that *Chlamydia trachomatis* is not an uncommon cause of afebrile pneumonia in infants and is probably underdiagnosed. Clinical suspicion and early diagnosis are of great importance, since, as they indicated, it can lead to serious complications and intensive care (IC) admission.

None of the patients in our series² required IC admission and the duration of hospitalisation was shorter (median of 6.5 days versus 9.5 days), perhaps because our patients had an older median age at diagnosis (58 days versus 48 days). However, we do agree on the

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typical clinical presentation and note that fever was uncommon in the series presented, as in our patients. Again, it is important to stress the importance of a history of conjunctivitis, as already mentioned by previous studies.³

We would like to point out that the main differential diagnoses for the presentation reported are pertussis-like syndrome and bronchiolitis. In this regard, the presence of eosinophilia in laboratory tests, found in a large part of the cases collected in both series and typical in *C. trachomatis* infection, as well as the slow course of the respiratory condition, are highly indicative data, and serve as microbiological evidence enabling a definitive diagnosis to be made.

Regarding diagnosis, the technique used is the same as that used at our centre (BD MAX CT/GC/TV, Becton Dickinson®). Therefore, although not approved by the FDA in nasopharyngeal samples, it is probably the technique of choice for diagnosing this disease.

Lastly, we would like to highlight the other piece that we believe is key to diagnosis: the maternal figure. We find that both the mother's age and the mother's foreign origin constitute risk factors for *C. trachomatis* respiratory infection in the first few months of life. We agree with the proposed screening for pregnant women, already done by Dr Piñero et al.⁴ and supported by Fabra et al.,⁵ but we would like to emphasise that the proposed risk age (under 25 years) for pregnant women excludes from screening 50% of the cases collected in their series and 75% of the cases in ours; therefore, it might be necessary to consider increasing the proposed risk age. We do agree that the mother's origin is a risk factor for this infection and that, therefore, this is the target population for screening.

In conclusion, we would like to reiterate that *C. trachomatis* infection is among the most common causes of afebrile pneumonia in infants; its clinical presentation is similar to that of other respiratory conditions (rhinorrhoea, cough and respiratory distress), and fever is uncommon. We would also like to highlight the main clues to diagnosis: a young mother, a mother of foreign origin, a history of conjunctivitis and a latent clinical picture, with eosinophilia as a laboratory finding. These enable the infection to be identified, the appropriate samples for the infection's diagnosis to be taken and early treatment to be started to prevent complications and IC admission.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

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