

DIRECT IDENTIFICATION OF STREPTOCOCCUS PNEUMONIAE SEROTYPES IN CULTURE NEGATIVE PAEDIATRIC CLINICAL SAMPLES BY A PCR REVERSE-HYBRIDIZATION STRIP-BASED COMMERCIAL ASSAY

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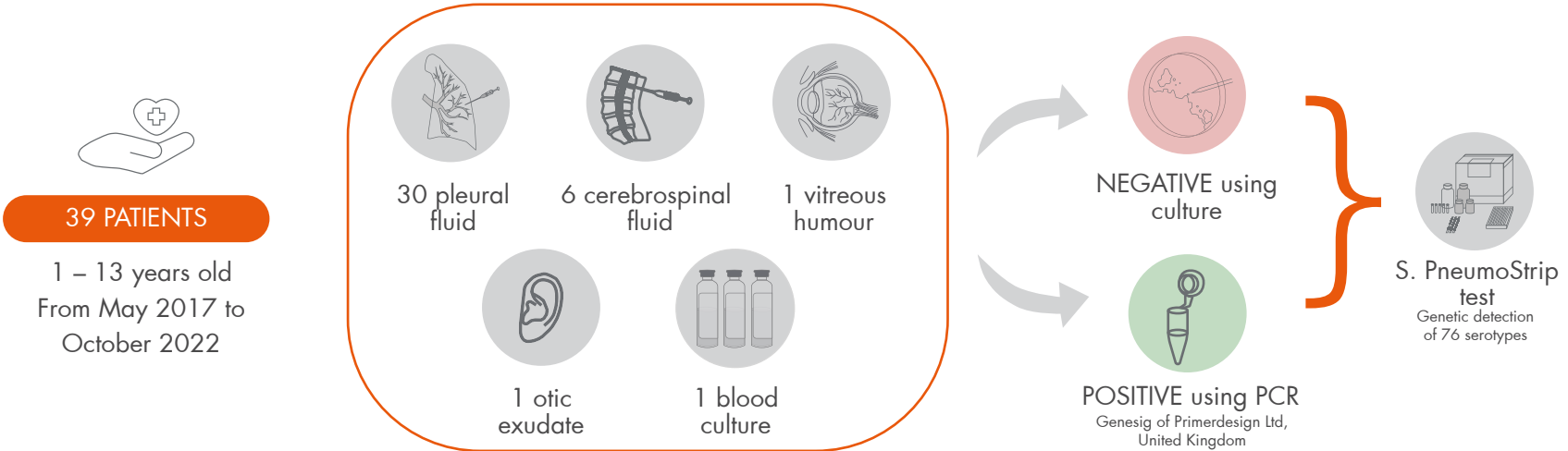
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BACKGROUND

The Quellung reaction is the gold standard for pneumococcal serotyping but requires strains growing in culture. However, bacterial autolysis and empirical antibiotic therapy makes difficult the availability of pure colonies. The objective of this work was to assess the performance of a technique (S. PneumoStrip test; OPERON S.A., Zaragoza, Spain) based on PCR followed by a reverse strip hybridization for the detection of *Streptococcus pneumoniae* serotypes directly in culture negative samples. This test allows the simultaneously detection of the *lytA*, *cpsA* and *ply* genes and the identification of 76 serotypes of pneumococcus (42 individually and 34 as pairs).

METHODS



RESULTS

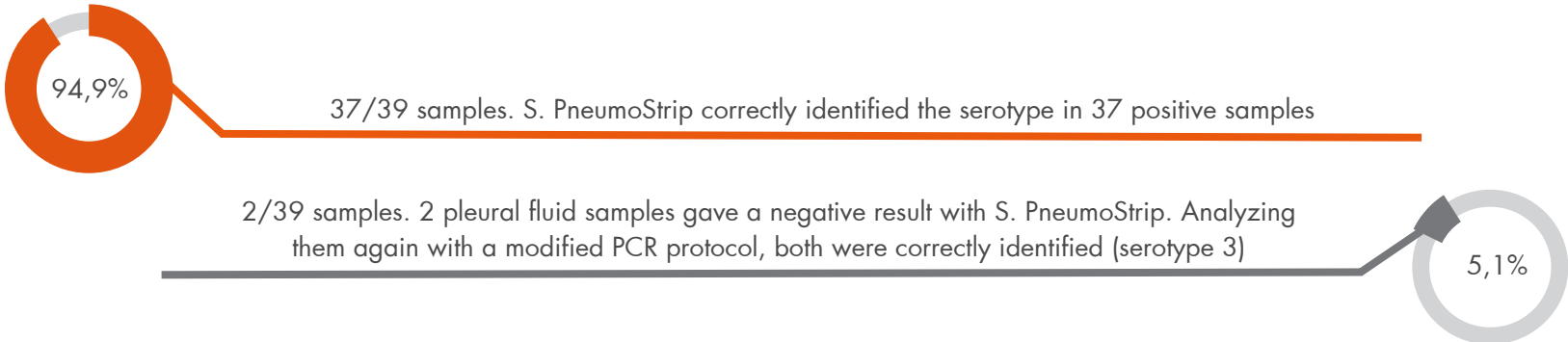
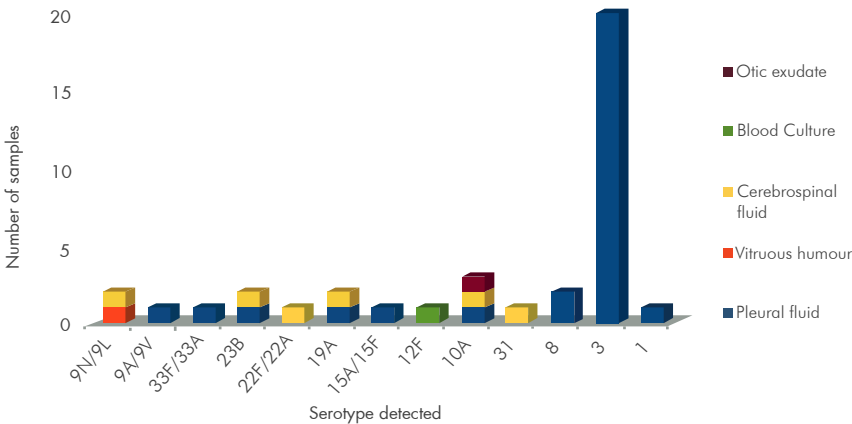
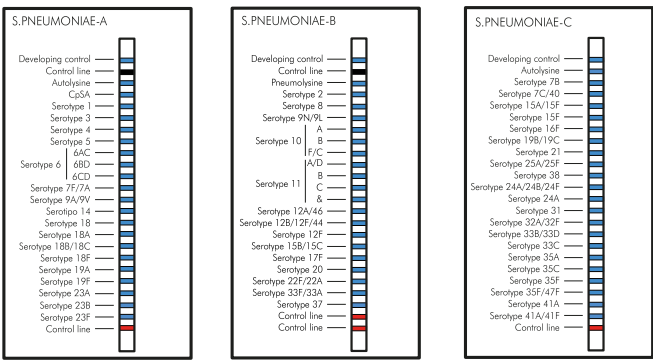


Table 1: serotypes of *S.pneumoniae* detected in paediatric samples



Control strips for the identification of serotype with S. PneumoStrip



CONCLUSIONS

Although the number of cases studied is small, S. PneumoStrip test seems to be a good alternative technique to the Quellung reaction for direct serotyping of *Streptococcus pneumoniae* in clinical samples when there are not available strains.

A point of concern is the elevate frequency of the pneumococcal conjugate vaccine 13 (PCV13) covered serotype 3 detected in pleural samples despite the generalized use of this vaccine in Spanish children.

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Disclosure: R. de Luis and S. Gamen; OPERON S.A. (Zaragoza, SPAIN)