



Shigella infections in MSM from Vallès Occidental, Barcelona: species distribution and ESBL production



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Conclusion

- *S. flexneri* predominated among culture-confirmed isolates.
- ESBL-producing isolates occurred in younger patients in this series.
- Culture and rapid resistance characterization remain essential after molecular detection of *Shigella* in MSM.
- *S. sonnei* showed a markedly higher likelihood of ESBL production.

Introduction

Shigellosis is increasingly reported among men who have sex with men (MSM), but information combining species distribution, HIV status and extended-spectrum beta-lactamase (ESBL) production remains limited.

The aim

We analysed *Shigella* infections diagnosed in MSM from Vallès Occidental (Barcelona), processed at CatLab, and assessed whether ESBL production differed by species.

Methods

Study design and population

Retrospective single-centre study including all MSM with a positive gastrointestinal multiplex PCR for *Shigella* between March 2022 and March 2026.

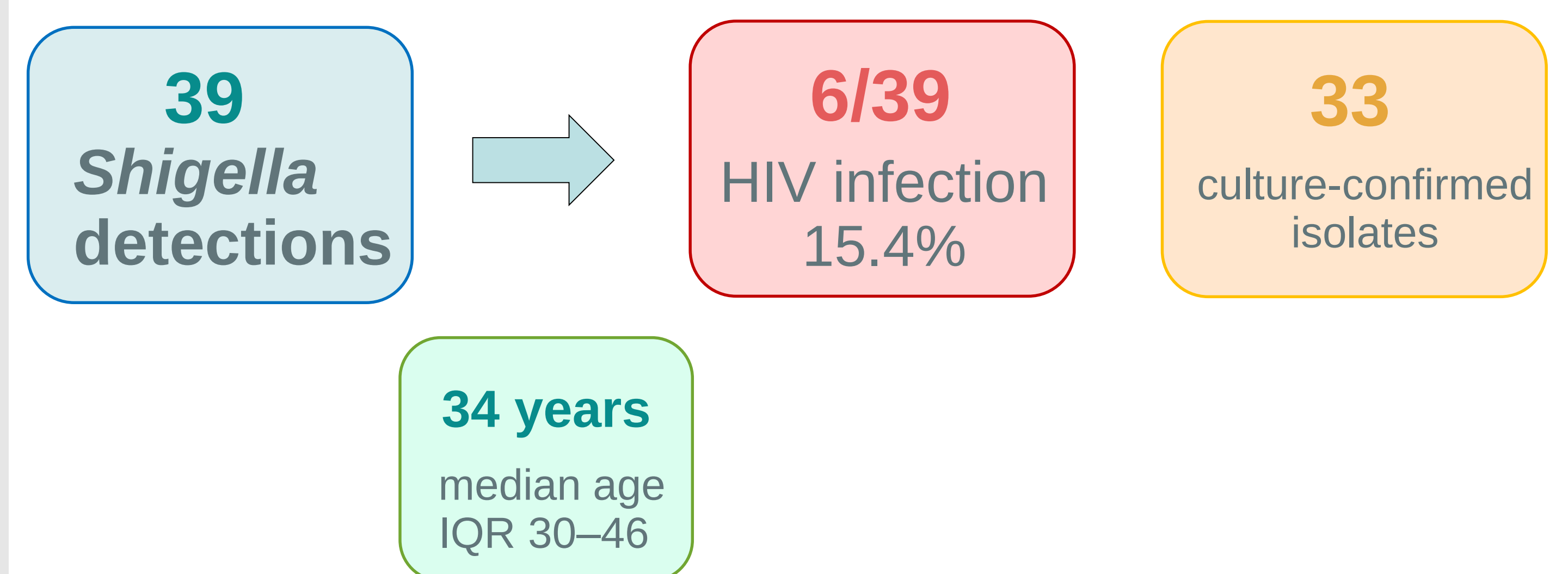
Microbiological procedures

PCR-positive samples were cultured on selective media whenever possible. PCR-positive/culture-negative episodes were classified as molecular diagnoses and excluded from species–ESBL analyses. ESBL production was assessed from the antimicrobial susceptibility profile and confirmed by immunochromatographic testing.

Statistical analysis

Categorical variables were compared using Fisher’s exact test and continuous variables using the Mann–Whitney U test.

Results

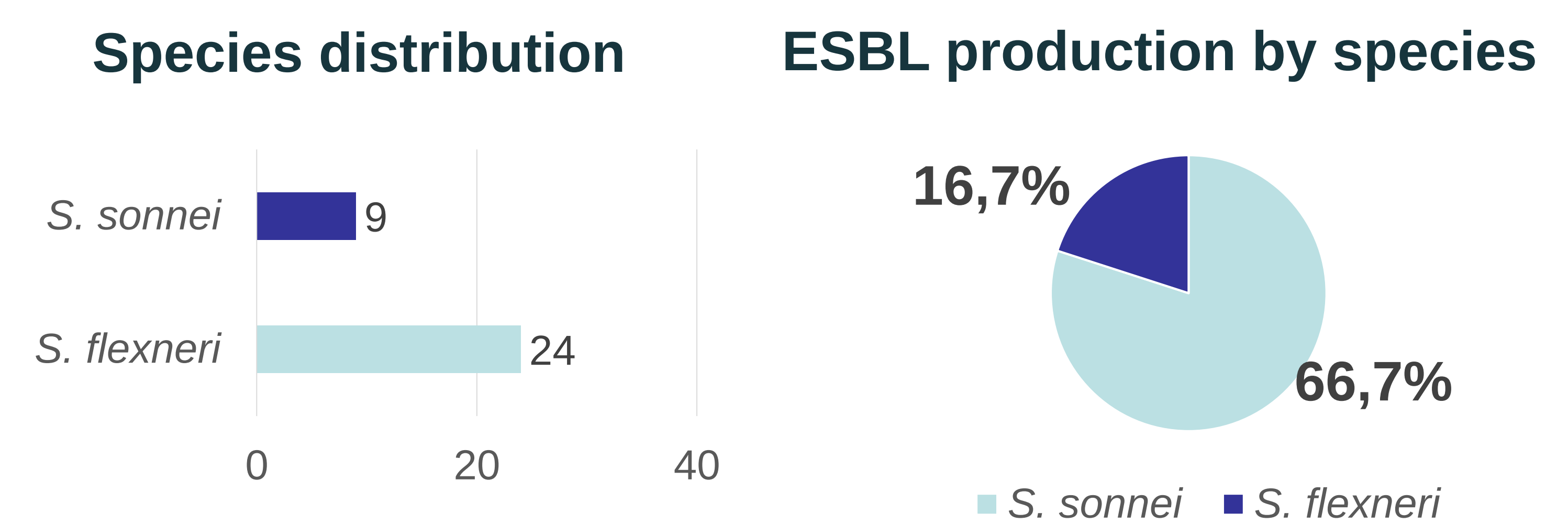


Six episodes (15.4%) were molecular diagnoses only.

Among 33 culture-confirmed isolates:

- 24/33 (72.7%) *S. flexneri*
- 9/33 (27.3%) *S. sonnei*.

Overall, 10/33 isolates (30.3%) were ESBL producers.



S. flexneri predominated overall (72.7%). OR 10.0 (95% CI 1.7–57.7); p = 0.010

Exact species-level results

Species	n	Share	ESBL
<i>S. flexneri</i>	24	72.7%	4/24 (16.7%)
<i>S. sonnei</i>	9	27.3%	6/9 (66.7%)
Total	33	100%	10/33 (30.3%)

AGE AND ESBL STATUS

ESBL-producing isolates were recovered from younger patients:

