



Collateral consequence of COVID pandemic: increased incidence of Cat Scratch Disease



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BACKGROUND

Bartonellosis is a zoonotic disease caused by bacterial genus *Bartonella*. In immunocompetent individuals, it causes Cat Scratch Disease (CSD). compromise other organs (systemic disease).

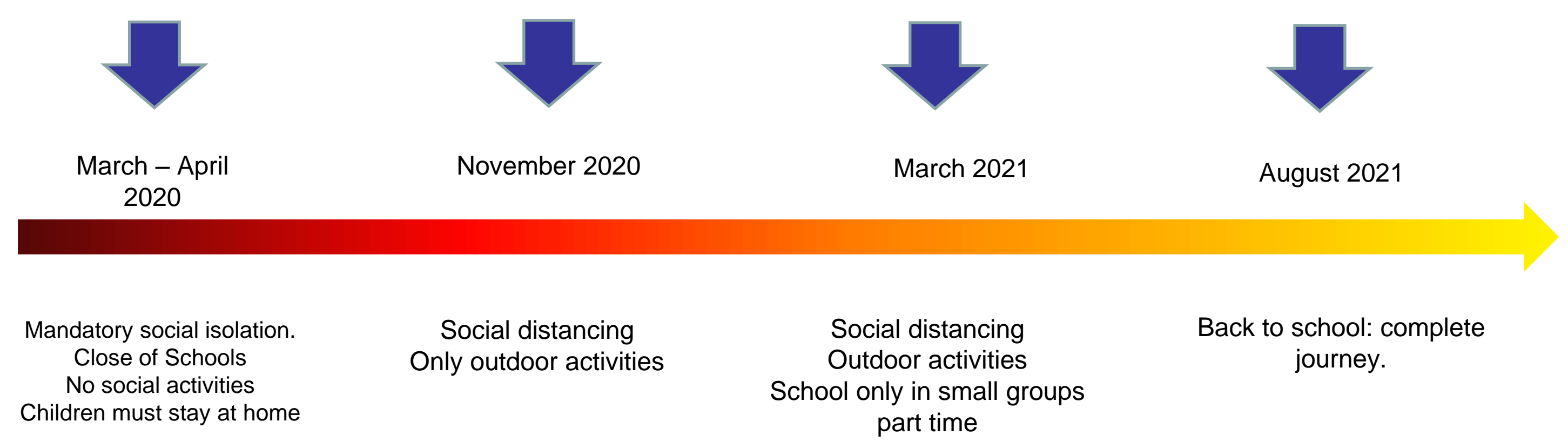
It is a self-limiting infection characterized by lymphadenopathy. However, in a variable percentage of cases, the disease can compromise other organs (systemic disease).



OBJECTIVES

The aim of our study was to determine the incidence of CSD before the preventive and obligatory social isolation/distancing that was indicated in Argentina as a consequence of the SARS-CoV-2 pandemic on March 19, 2020 (“**first period**”) and to compare it with the incidence since then to present (“**second period**”).

Timeline of government imposed social isolation/ distancing



METHODS

- Retrospective analysis
- March 2012 to March 2022
- Patients 0-18 years admitted to the Infectious Diseases outpatient office at “Dr. Ricardo Gutiérrez” Children’s Hospital (a tertiary pediatric hospital, reference center in Buenos Aires, Argentina, with ~9,500 annual admissions and ~450,000 annual outpatient visits)
- With serologic diagnosis of CSD

RESULTS

- A total of 229 pediatric patients were included in our study.
- The median age was 101.67 months (range 11.3 to 211.87).
- No differences in gender or age were observed among periods.
- We noticed that the period with the highest incidence was comprised between February to July (Fig.1). However not seasonal pattern was observed during second period (Fig.2).

Figure 1. Mean cases/ month during the first period

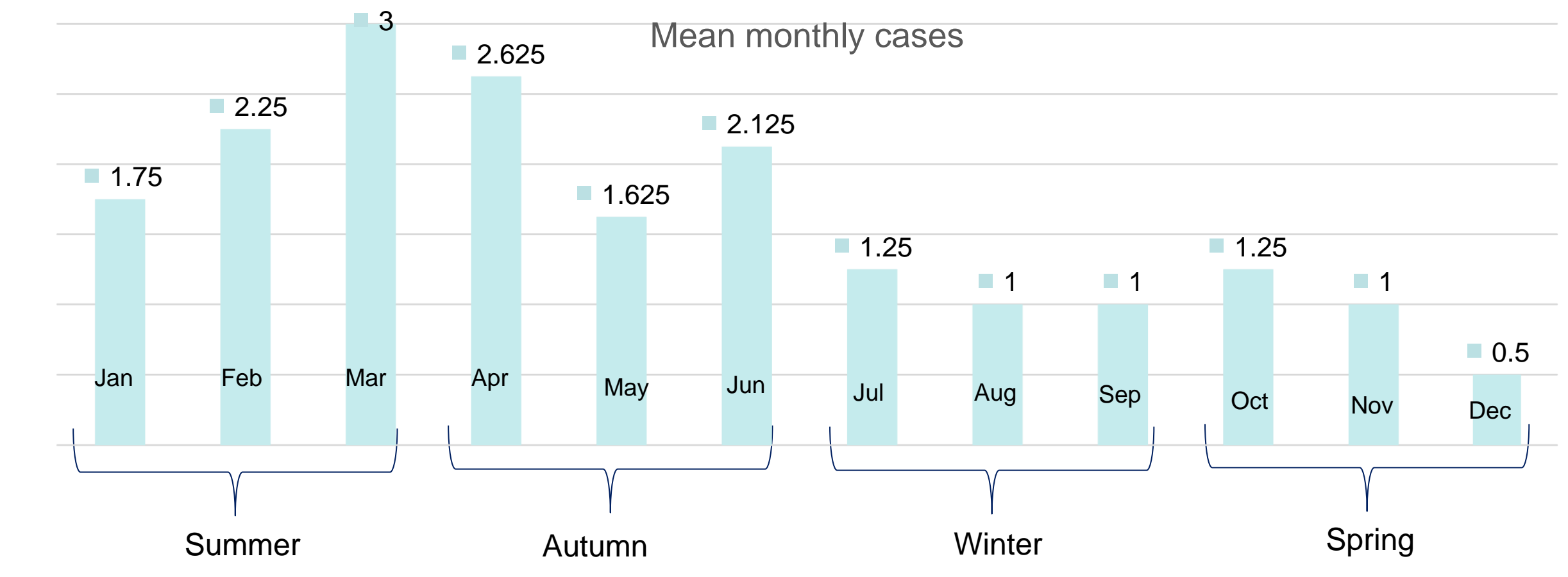


Figure 2. Cases per month

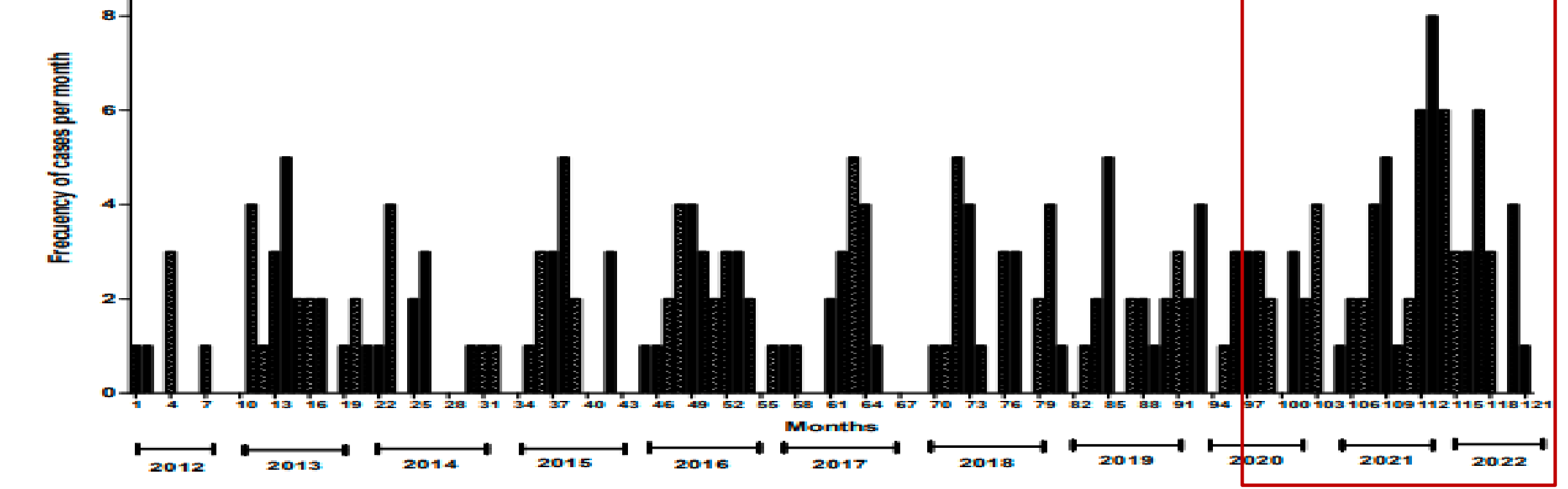
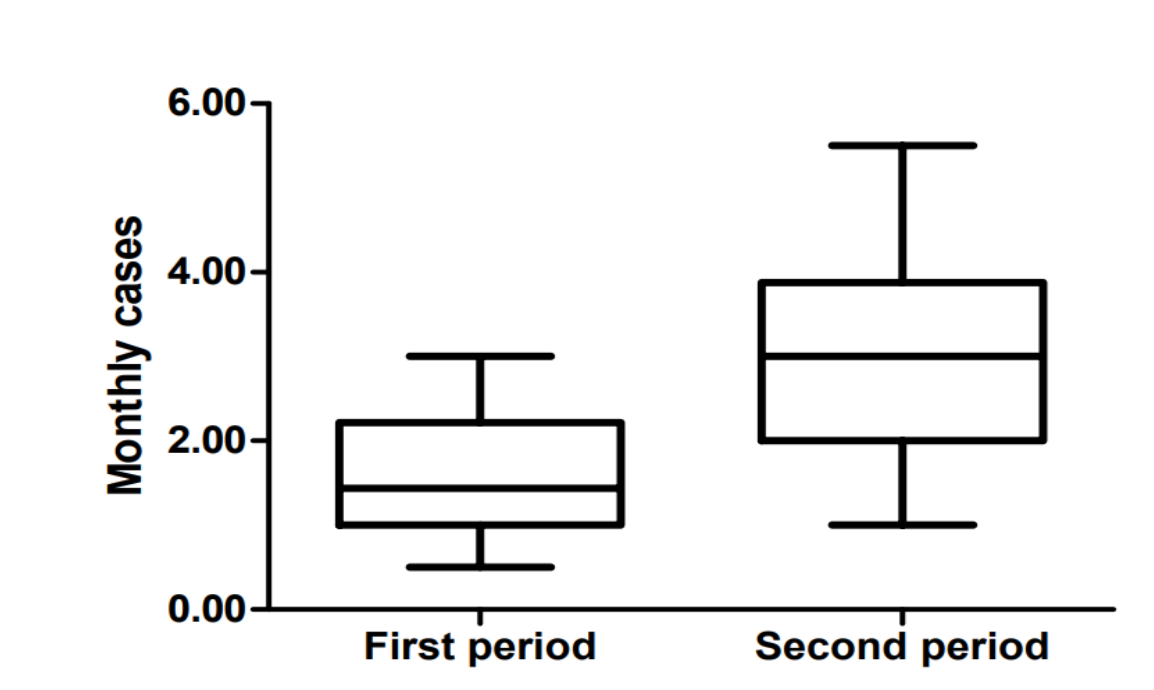


Figure 3. Incidence



The incidence at the first period was 1.63 cases per month (158 in 97 months) and at the second period we observed an increased incidence of 3.23 cases per month (n: 71 in 22 months) Fig.3.

We observed the following characteristics in clinical presentation:

- The median delay between symptoms onset and medical consultation was 15 days (IQR 9-30d), without statistically significant differences between periods.
- Febrile patients: 50.2%
- Days of fever: mean 12 (SD 13) days. Median 7 days, IQR: 3-15
- Febrile prolonged syndrome: 52/229 (22.7%) patients (No differences among periods)
- The frequency of systemic compromise was higher in the second period: 47.89% versus 32.28% (p=0.01) (Fig.4).

Figure 4. Frequency of Systemic compromise

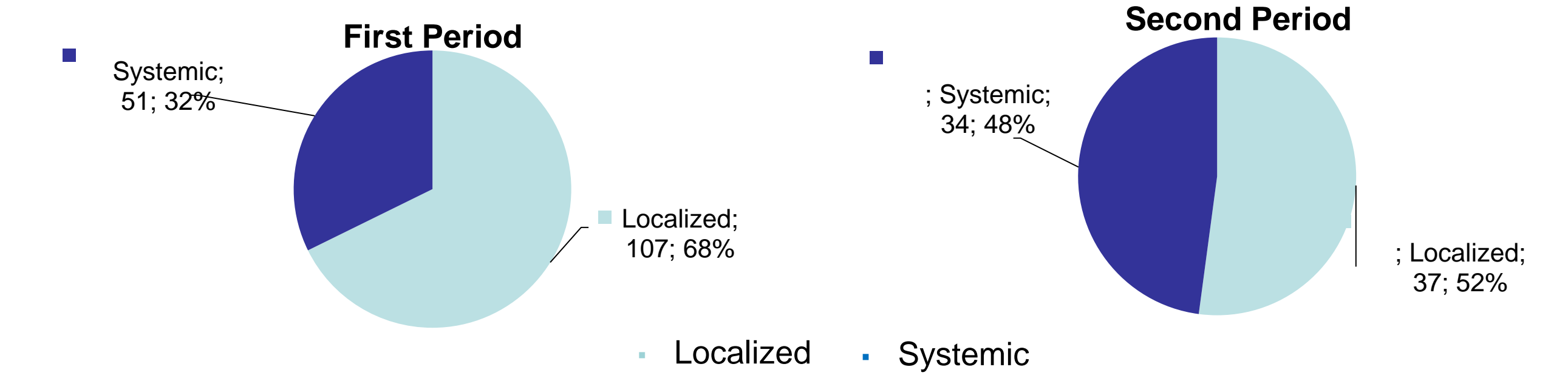
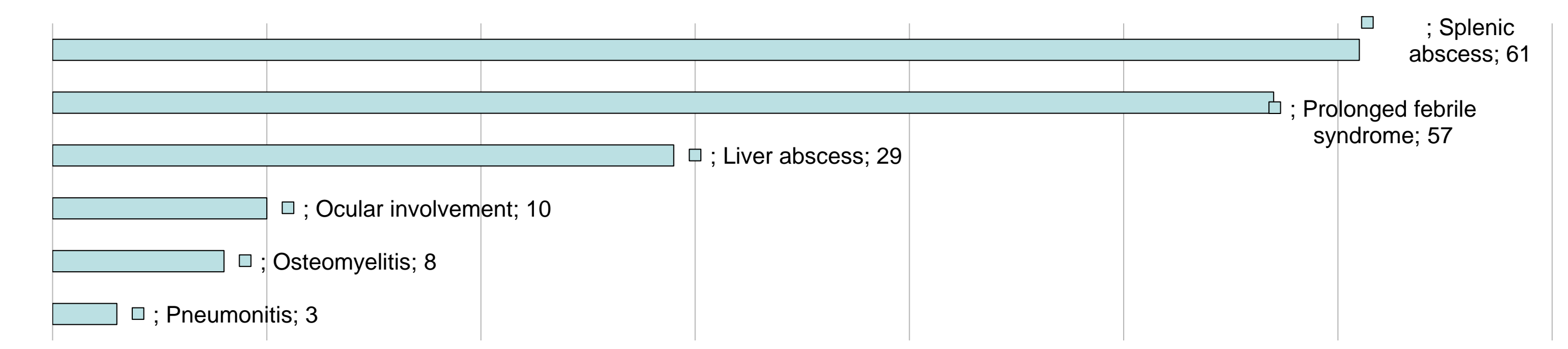


Figure 5. Systemic compromise



CONCLUSIONS

- A seasonal pattern was observed during the first period, with more cases between February to July.
- We noticed a significant increase of CSD during the COVID pandemic, probably related to a closer children’s contact with pets due to the strict sanitary quarantine that health authorities implemented.
- Moreover, an unexpected finding was a higher proportion of patients with systemic CSD during the second period.