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| **ISA ISPID  Abstract Submission  Nº: 279**   |  | | --- | | Topics: **SIDS/SUID** | | Type: **Poster** | | **Unexpected death in infancy and bacterial infection** | | **Albini, María**1; **Rubio, Ivonne**2; **Gutiérrez, Carmen**3; **Rodríguez, Ángeles**3; **Kanopa, Virginia**4; **Beltramo, Pilar**3; **Palenzuela, Sylvia**3; **Scavone, Cristina**2; **Boulay, Marie**5 *1 - Bacteriología. Hospital Pereira Rossell. 2 - Sociedad Uruguaya de Pediatría. 3 - Laboratorio de Patología Pediátrica. Hospital Pereira Rossell. 4 - Clínica Pediátrica. Hospital Pereira Rossell. 5 - Programa Niñez. Ministerio de Salud Pública.* | | **Introduction** Infant mortality rate in Uruguay in 2015 was 7.4 per 1,000 live births. The cases of sudden unexpected death in infancy (SUDI) are studied with a standardized investigation protocol with participation of forensic physician and pediatric pathologist in the autopsy. In August 2009 a special law was approved (N° 18.537) to study every case of SUDI. More than half of the cases are explained deaths, and bacterial infections are frequent. Samples are collected during the autopsy. A primary pathogen (PP) isolated from an autopsy without histological evidence of infection, frequently generates doubts on the role of the infectious agent. The isolation of bacterial species may be: 1. Non-pathogenic, 2. An opportunistic pathogen, 3. A primary pathogen. Among the second two are the agents that, once isolated, could be related with the histologically identifiable infection foci, or could cause a severe infection without a clear foci. **Objectives:** To analyze the microbiological studies of samples taken at the autopsy procedure in SUDI and try to relate the bacterial pathogens (BP) with the histological findings.  **Material and Methods** 591 SUDI cases were studied from 1998 to 2015 with a free interval between 2001 and 2006.  The protocol included microbiological studies, virological (with molecular biology included) and bacteriological, with cultures of 4 samples (blood from the heart, spleen and lungs). The complete autopsy comprised body measurements, organ weights, dissection, histology, X-ray radiography, postmortem vitreous chemistry and, in selected cases, genetic tests. Clinical records, circumstances of death and family interview were gathered. Cases were discussed in a multidisciplinary team. Results were coded as Explained or Unexplained death. The latter included the Gray Zones (GZ) and SIDS cases.  **Results** 529 autopsies had bacteriological studies. 2116 samples for cultures. Positive cultures: 1640 (77.6%), no bacterial growth: 476 (22.4%). In explained deaths, BP was isolated in 45 (8.5%). In ZG, BP was isolated in 41 (7.7%). A respiratory infection with histological confirmation was seen in 25 (55%). *S. Pneumoniae* was the predominant agent, with 11 cases (44 %). Isolation of pathogen was obtained in 321 (19.1%) samples from 86 autopsies (16.2%). They belonged to groups 2 and 3. A polymicrobial flora was obtained in 1319 (80.4%), from 443 autopsies (83.8%). The total amount of pathogens isolated was 110 (24 co-infections), with a media of bacterial recovery: 3 of the samples. Gram positive bacteria predominated. *S. pneumoniae* was the most frequent agent isolated, followed by *S. aureus* and *S.agalactiae.*  **Conclusions** The similar percentage of isolated agents in explained and unexplained deaths may give a hint of a possible participation in cases of GZ SUDI. Although the results of post mortem microbiology are scarce, they are important on an epidemiological aspect. They are challenging when considering causes of SUDI. | |  |  |  |  | | --- | --- | | **CONTACT** | | | Name: | **María** | | Lastname: | **Albini** | | E-mail: | **marialbiba@gmail.com** | | Country: | **Uruguay** | | Institution | **Bacteriología. Hospital Pereira Rossell** | | Cellphone: | **59827084594** | | City: | **Montevideo** | |