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| **ISA ISPID  Abstract Submission  Nº: 208**   |  | | --- | | Topics: **SIDS/SUID** | | Type: **Oral** | | **SIDS and altitude** | | **Vigo, Alessandro**1; **Costagliola, Giulia**1; **Ferrero, Elisa**1; **Noce, Silvia**1 *1 - Department of Paediatrics, Center for Pediatric Sleep Medicine and SIDS, Regina Margherita Children’s Hospital, Città della Salute e della Scienza, Turin, Italy.* | | **Introduction** The relationship between Sudden Infant Death Syndrome (SIDS) and altitude has been recently discussed, suggesting an increased risk in children living above 2400 metres. Piedmont has the highest district in Italy (Sestriere 2035 metres, 921 inhabitants in 2014, 80 children born between 2004-2014). Our aims are 1) to describe sudden unexpected deaths (SUD) between 0-2 years and SIDS cases collected by the Center for Pediatric Sleep Medicine of Turin between 2004 and 2014 2) to assess if there is any association between altitude and SUD in our Region.  **Material and Methods** Our Center provides active surveillance for SUD in the range 0-2 years, collecting data regarding cause, place and modality of death together with past history of infants and their family. We collected for all children death certificates and autopsy; if the child was hospitalized we collected hospital discharge forms and instrumental exams performed too. Medical staff of the Center and a health care assistant, who eventually classified the cases using Krous classification, analysed the data. The Italian territory is divided by ISTAT (National Institute of Statistics)in altimetric zones, defined as plain (absence of elevation), hill (elevation until 600 metres high) and mountain (elevation above 600 metres high); altitude was determined classifying each death place into an altimetric zone. The number of newborns was collected using the hospital discharge form, completed at discharge, as established by the Istituto Superiore di Sanità. The Number of people living in Piedmont at the end of each year included in the study was collected using the Piedmont Online Statistical and Demographical Database. The  overall birth and mortality rate, the mortality rate for SIDS and the SUD in each altimetric zone were calculated, such as overall and by year relative risk of SIDS and SUD.  **Results** A total of 399740 children were born in Piedmont in the years studied (overall birth rate 8,26 ‰). A total of 87 SUD occurred in the period studied (36 females, mean age 138+-166 days), overall mortality rate 0,22 ‰; out of these 87, 35 resulted to be SIDS (16 females, mean age 96,8+-100 days) overall mortality rate for SIDS was 0,08 ‰. Using Krous classification we found 18 class 1B, 10 class 2 and 7 non classifiable. Overall mortality rate for SIDS above 600 metres was 0,10 ‰, under 600 metres 0,15 ‰ (for all SUD: above 600 metres 0,22 ‰, under 600 metres 0,32 ‰). Compared to the risk for SIDS under 600m, the risk for SIDS above 600m was not significantly increased (overall RR 0,68 C.I. 95%: 0-380), such as the risk of SUD (overall RR 0,67 CI 95% 0,3-1,3).  **Conclusions** In our cohort we did not find any increased risk for SIDS or SUD above 600m; our results could be extended to all Europe, where most people live at the same altimetric zones of Piedmont or less. Further studies, based on a large population living permanently at 2000 metres and above (such as Mexico City, La Paz), are needed to establish an increased risk for SIDS at higher altitudes. | |  |  |  |  | | --- | --- | | **CONTACT** | | | Name: | **Alessandro** | | Lastname: | **Vigo** | | E-mail: | **avigo@cittadellasalute.to.it** | | Country: | **Italia** | | Institution | **Department of Paediatrics, Center for Pediatric Sleep Medicine and SIDS, Regina Margherita Children’s Hospital, Città della Salute e della Scienza, Turin, Italy** | | Cellphone: | **+39368487832** | | City: | **Turin** | |