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Abstract (poster session)

**Acute rubella encephalitis: a severe neurological complication**

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**Objective:** To evaluate the incidence and the clinical characteristics of rubella encephalitis during the rubella outbreak in Romania. **Methods:** Retrospective study on patients diagnosed with rubella encephalitis, admitted to “Victor Babes” Clinical Hospital of Infectious and Tropical Diseases during the rubella outbreak (November 2011-June 2012). Diagnosis was established by serological methods (ELISA for IgM antibodies against rubella in serum and CSF samples) and PCR (in 4 patients). **Results:** We studied 10 patients, 6 males, with a median age of 14 years [2, 29], most of them with no history of vaccination against rubella (9/10). The incidence was of 1 in 387 cases of rubella referred to the Clinical Hospital of Infectious and Tropical Diseases “Victor Babes”. The median period of hospitalisation was 13.5 days [10,16]. The onset of encephalitis was super acute, after a median period of 5 days [1,10] from the onset of the rash, with generalized seizures in 7 cases, 5 of them presenting status epilepticus. We observed altered mental status in 8 patients – from confusion (2) to coma (6) and in 5 of them a slight pyramidal syndrome was evidenced. Seven patients were referred to the ICU (2 of them being intubated and mechanically ventilated). Cranial computed tomography revealed diffuse cerebral oedema in 3 patients. EEG was done in 6 patients and showed continuous slow activity, with no specific features. CSF analysis showed lymphocytic pleocytosis (<100/cmm in 8 patients). Ig M antibodies against rubella were positive in serum in all 10 patients, and in CSF in 7 of them, respectively. PCR for rubella virus was positive in throat swabs of 4 patients. The 2B rubella virus genotype was evidenced by molecular methods. The outcome was favourable under treatment with intravenous immunoglobulin, anticonvulsants, corticotherapy, and medication against cerebral oedema and we noticed no neurological or psychiatric sequelae. **Conclusions:** Rubella encephalitis developed mostly in teenagers and young adults with no history of rubella vaccination, and had a higher incidence compared to literature data. Patients with severe disease, who presented with status epilepticus, required a complex management in the ICU