

## FP89

**Epidemiology in children treated for intracranial tumors in Ukraine 1980-2009**Yuriy A. Orlov, Andrii V. Shaverskyi, Pavlo N. Plavskyi*Institute of Neurosurgery named after acad. A.P.Romodanov, NAMS, Kiev, Ukraine*

**Objectives:** We present an epidemiological survey of brain tumors in children with regard to their age-related location, histology, malignancy and analyzed in periods before and after Chernobyl accident.

**Material and Methods:** Within 1980-2009 at the Pediatric Department of the Institute of Neurosurgery, there were examined and treated 3591 children, who had histologically verified brain tumors. The epidemiological research was carried out taking into account tumor histostructure and malignancy grade.

**Results:** In order of frequency the most common types were astrocytic tumors (38.5%), embryonal tumors (19.5%), craniopharyngioma (10.4%) and ependymal tumors (6.4%). Malignant tumors accounted for 45.5% of all neoplasms.

The pre-Chernobyl material (1980-1984) numbered 379 cases, whereas in the post-Chernobyl periods it became more sizable: 1985-1989 – 711 cases (1.9 times increase); 1990-1994 – 580 cases (1.5 times increase); 1995-1999 – 629 cases (1.6 times increase); 2000-2004 – 573 cases (1.5 times increase); 2005-2009 – 717 (1.9 times increase). Thus the analysis of brain tumor incidence in children within periods before and after the Chernobyl disaster has clearly demonstrated its rise. Taking into consideration the overall decline of birth (on 42.2%) and natural decrease of general children's population, the 1.9 times growth of a mean incidence value seems rather substantial.

The post-Chernobyl period saw the rise of malignant tumor incidence (III-IV grade anaplasia). In 1980-1984 they constituted 41.2% and in 2005-2009 came up to 46.7%.

**Conclusions:** Analysis of brain tumor incidence in children before and after the Chernobyl disaster has clearly demonstrated its rise. The post-Chernobyl period saw the rise of malignant tumor incidence.