

Intracranial Germ Cell tumor in Thai children: Review new cases in service during 2011-2014 at QSNICH

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Queen Sirikit National Institute of Child Health(QSNICH) is a tertiary care center for pediatric patients. Approximately 300 neurosurgical procedures were operated each year. We have neurosurgeon and oncologist for service of malignant brain tumor patients but for radiotherapy, patients were referred to National Cancer Institute of Thailand. During 2011-2014 ,there were 9 cases of pineal region tumor. 3 cases were germinoma , 2 cases were mixed germ cell tumors(immature teratoma and germinoma) , 2 cases were mature teratoma, 1 case was atypical teratoid rhabdoid tumor and 1 case was tectal plate glioma. There were 4 cases of extrapineal germ cell tumor including mixed germ cell tumor(immature teratoma and germinoma) at suprasellar region , yolk sac tumor at cerebellar hemisphere , mature teratoma at cerebellar hemisphere and mature teratoma at left lateral ventricle. All mature teratoma cases were well responded with complete surgical removal. Germinoma cases were well responded with radiotherapy and chemotherapy. In mixed germ cell tumors with immature teratoma component group. 1 case expired at 2 week postoperative due to Acinetobactor sepsis. 1 case was referred to received adjuvant therapy and followed up at another hospital. 1 case had multiple recurrent episodes after received near total surgical removal, radiotherapy and chemotherapy. Pathological finding of last operation show that tumor had malignant

transformation into undifferentiated high grade sarcoma. Patient expired 4 years after diagnosis. In yolk sac tumor at cerebellar case , preoperative diagnosis was pilocytic astrocytoma and gross total surgical removal was attempted. After receive pathological diagnosis , patient were treated with chemotherapy and had a favorable outcome. In total 11 cases of intracranial germ cell tumor , 3 cases(27%) were germinoma , 3 cases(27%) were mixed germ cell tumor , 4 cases(36%) were mature teratoma and 1 case(9%) was yolk sac tumor. Treatment and prognosis vary among neoplasm types.