

Childhood Brain Tumour

In HK, there are around 30 to 40 new cases of the childhood brain tumour diagnosed each year and 50% to 60% of the patients are below the age of 5. While the etiology of the brain tumour remains unclear, current evidence suggests that it is not an inherited or infectious disease.

The malignant brain tumour is a kind of cancer. The symptoms of brain tumour vary with its location in the brain, but headache and vomiting are the relatively common presenting features, which makes early diagnosis very difficult. Without timely and appropriate treatments, the child usually dies within a year.

Surgery, chemotherapy and radiotherapy are the 3 main forms of conventional treatment modality for brain tumour. In recent years, megadose chemotherapy followed by autologous haemopoietic stem cell transplantation has been applied to patients with recurrent or advanced stage brain tumour.

The principle of this approach is to pre-store and cryopreserve the patient's own stem cells and then apply high dose of chemotherapy. After the high dose chemotherapy, pre-stored haemopoietic stem cell will be re-infused back to the patient. By doing so, the dose of chemotherapy can be increased to achieve a higher effective dose without affecting the marrow regeneration.

In HK, the Queen Mary Hospital was the 1st centre to perform autologous haemopoietic stem cell transplantation on patients with childhood brain tumour since 1996, and 7 cases have been handled. AHSCT saved 4 lives, and the longest survival period is over 6 years.