Prognosis of Patients with Neuroblastoma as Diagnosed by Mass Screening

Yuko NOMURA[1)], Fumio YANAI[1)], Keiko NIBU[1)3)],
Hidetaka AKIYOSHI[1)], Michiki HATANAKA[1)], Koushi ASABE[2)],
and Akihisa MITSUDOME[1)]

[1)] *Department of Pediatrics*
[2)] *The Second Department of Surgery, Fukuoka University School of Medicine*
[3)] *Blood Transfusion Unit, Fukuoka University Hospital*

Abstract: We analyzed the prognosis of nine patients with neuroblastoma as diagnosed by mass screening between 1996 and 2003. The period of observation varied from 7 to 92 months. The stages at diagnosis were stage Ⅰ for six patients, stage Ⅲ for two and stage ⅣA for one. Eight out of the nine patients underwent operations including one case which had a biopsy while the remaining case was only observed with no treatment. Three patients also received chemotherapy following the operation. Eight patients are presently alive and four of them still have tumors. Three out of four patients have shown no progression of the tumor even after stopping chemotherapy. Regarding prognostic factors, only one patient showed amplified N-myc oncogenes and this patient died 21 months after being diagnosed despite undergoing aggressive chemotherapy accompanied by peripheral blood stem cell transplantation. Although the majority of patients identified by mass screening of neuroblastoma have a good prognosis and thus do not require treatment, a small number of such identified cases do demonstrate a poor prognosis. As a result, an improved and refined mass screening method for neuroblastoma needs to be established.

Key words : Neuroblastoma, Mass screening, N-myc