Comparison of clinical analysis of facial nerve paralysis Between adults and children
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Background and Objectives: Facial nerve is subject to injury at any point in the course from the cerebral cortex to the motor end plate in the face. So many etiologic varieties of facial nerve paralysis may be encountered, including idiopathic, trauma, viral infection and so on. Although there were many researches done concerning facial nerve paralysis, almost none of these researches studied the difference between adult and children. So the aim of this study was to evaluate etiology and recovery rate between childhood and adult. Materials and Method: Between January 1986 and July 2005 we examined 975 patients who presented with facial palsy in Kyunghee University Hospital. The patients ages ranged from 0 to 88. Results: The highest age groups were 46-60 years old. The causes of facial palsy in adults were as follow: Bell’s palsy(54.9%), idiopathic Bell’s palsy(22.5%), temporal bone fracture(77.8%), Herpes-Zoster oticus(85.7%), idiopathic Bell’s palsy(80.1%), otitis media(12.5%), patients with facial nerve paralysis are most frequently asked “what is the probability of improvement?” and “how much improvement will occur?”

Methods & Materials
The patient cohort consisted of 975 individuals who presented with facial nerve paralysis at Kyunghee Medical Center from January 1986 to December 2005. From their medical records, we retrospectively evaluated their age, sex distribution, the cause of facial nerve paralysis, treatment methods, and recovery rate. A 5-year age group was divided into 6 groups according to their age: 0-15 years, 16-30 years, 31-45 years, 46-60 years, 61-75 years, and older than 75 years. Patients aged 0-15 years were considered children and those 16 and older were considered adults. All patients were treated with bed rest, oral corticosteroids, peripheral vasoconstriction, and physical therapy. Adults were administrated 60 mg oral prednisolone for the first 4 days, tapered to 60 mg/day on days 5 and 6, 40 mg/day on days 7 and 8, 20 mg/day on days 9 and 10, and 10 mg/day on day 11. Children, adolescents, and light-weight adults were administered 1 mg/kg prednisolone for the first 4 days, followed by proportional tapering over the next 7 days, as above.

Results
Facial nerve paralysis is relatively rare, with an annual incidence of approximately 30 patients per 100,000 individuals in a population. Facial nerve paralysis may have various causes, ranging from head injury to idiopathic Bell’s palsy, and may occur as a result of injury to the central or peripheral nervous system. Facial nerve paralysis may induce facial asymmetry, leading to a loss of balanced appearance and function, which may have a deleterious effect on patient psychology and social life. Therefore, physicians treating patients with facial nerve paralysis are most frequently asked “what is the probability of improvement?” and “how much improvement will occur?”

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Conclusion
Facial nerve paralysis in both adults and children is caused by Bell’s palsy, infection, and trauma, in that order. In contrast to previous studies, we did not observe a statistically significant difference in recovery rate between adults and children.