Effect of Perinatal and Neonatal Regionalization

Tadashi Masumoto,M.D., F.A.A.P.,Shunsuke Mizuta,M.D.
Hazime Imamura,M.D.
Dept. of Pediatrics,Nagasaki Chuo Hospital,Japan
Kenneth E. Scott,M.D.:Grace Maternity Hospital,Canada

Our hospital built up premature nursery 14 years ago and has been regionalizing sick newborns in the central part of Nagasaki. Recently perinatal motality rate decreased greatly in our area and I investigated that what our nursery had been contributing to perinatal motality rate of our area by neonatal regionalization. And I compared this result to that of Halifax county in Canada where perinatal regionalization was well developed. From those result I considered what kind of regionalization should be done in our area in future.

(slide 1) Background population of our area is about 400,000. This area is rural area of Nagasaki and include 27 small towns, 20 private Ob-Gy doctors, two general hospital,and several midwives deliver about 6000 babies per year. 250 babies are delivered in our hospital. Therefore most babies of our nursery are transfered from central part of province, We have 22 beds in our nursery.

(slide 2) Slide 2 shows the perinatal motality rate of last 10 years of our area, Nagasaki Province, and Japan. Perinatal motality rate of our area was much higher than that of Nagasaki Province and Japan untill 6 years ago, but it improved rapidly after then. At the present time, it is one of the best result in Japan.

(slide 3) At the same time, early neonatal motality rate in our nursery decreased rapidly since 6 years ago. During those period, the ratio of the admission number to delivery number was almost constant. (slide 4) Before 1974, about 40% of early neonatal death in our area occured in our nursery, but it decreased to about 20% at the present time. This probably means that early neonatal motality rate decreased more rapidly in our nursery than that of whole our area and this fact contributed to decrease perinatal motality rate of our area. But at the same time, this result means that the capacity of our nursery only be able to accept 20% neonatal death of our area. This is the result of inadequit regionalization of our area including inadequit beds and transportation.

(slide 5) I took neonatology trainig at Dalhousie University in Canada and found that perinatal regionalization was well developed in that area. Dalhousie University regionalize high risk pregnancy and sick newborns from whole Nova Scotia Province. Especialy in Halifax County, all babies are born in Grace Maternity Hospital. In onother words, Halifax County is doing perfect perinatal regionalization.I compared the perinatal motality rate of our area which only regionalize sick newborns to that of Halifax County which regionalize all pregnancies.(Untill 1974, one other hospital delivered several hundred babies per year.) Deliveries of Grace Maternity Hospital is about 4000 per year.As far as perinatal motality rate is concerned, both area is not so different. In 1975,perinatal motality rate of our area was 13.2 per 1000 deliveries and that of Halifax County was 11.2 per 1000 deliveries.Early neonatal death was rather low in our area. But when I looked at the stillbirth and early neonatal death

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