

FURTHER DEVELOPMENT OF CHILDREN FROM MULTIPLE PREGNANCY

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This study has aimed at assessing the psychomotor development of children from multiple pregnancy after full-term and premature births. A total of 166 children aged 6 months to 12 years were examined, including 70 pairs of twins, 2 sets of triplets, and 20 more children from multiple pregnancies of which only one child had survived.

A body weight below 10 percentiles was in 17%, and stature deficiency in 23% of children. The psychomotor development was arrested in 13%. Most of the children (18 out of 23) with arrested psychomotor development had a low body weight at birth and a complicated course of the neonatal period, as well as serious general illnesses in the infantile period.

Multiple pregnancy predisposes to premature birth, superimposed complications of pregnancy and labor, and contributes to higher perinatal mortality (Bergström et al. 1955, Fanconi and Wallgren 1967, Krzysztofowicz 1967, Michalowicz et al. 1972, Michalkiewicz et al. 1972). Premature birth and intrauterine dystrophy doubtless give rise to an important social problem appearing in the high percentage of neonatal mortality, morbidity and mortality of infants, and exerts an influence on the physical and mental development of a child (Ochabska 1963, Ewerbeck 1965, Jerzykowska-Kuleszyna 1967, Krzysztofowicz 1967, Michalowska 1967, Majewska and Twarowska 1968).

The frequency of premature births in multiple pregnancies, in the author's own material, amounted to 61% in 1962-1971, while in the same period the proportion of premature births in relation to the total number of births amounted to 10-12%. From the author's own observations and those of other authors it results that the further physical and mental development of premature infants is often arrested and these infants much more frequently suffer from permanent lesions of the central nervous system as a consequence of perinatal anoxia and the complications of the neonatal period (Stroeder 1965, Fanconi and Wallgren 1967, Michalowska 1967, Majewska and Twarowska 1968, Breborowicz 1971, Zywicka-Twarowska and Kalamaniak 1971).

The present study has aimed at assessing the psychomotor development of children from multiple pregnancy after full-term and premature births.

MATERIAL AND METHOD

The material included 166 multiple-pregnancy children (90 males and 76 females) born at the 2nd Clinical Department of Obstetrics and Gynecology of the Silesian Academy of Medicine in Bytom in 1959-1971, or admitted from the environs immediately after birth. The material included 70 pairs of twins, 2 sets

Table 1. *Age, Body Weight, and Stature of Children from Multiple Pregnancies*

	Age in years		Body weight in percentiles					Stature in percentiles							
	4-7	8-10	Below 10	10-25	25-50	50-75	75-90	Above 90	Below 10	10-25	25-50	50-75	75-90	Above 90	
Up to 3															
N [166]	62	24	19	29	58	39	33	10	7	38	44	41	20	14	7
%	36.9	14.4	11.6	17	35	23	20	6	4	23	26	25	12	8	4

Table 2. *Birth Weight and Psychomotor Development*

Kind of pregnancy	Birth weight		Psychomotor development				
	N	%	Normal		Arrested		
			N	%	N	%	
Children from multiple pregnancy [N = 166]	Below 2200 g	101	61	83	82.2	18	17.8
	Above 2201 g	65	39	60	94.6	5	7.4
Control children [N = 50]	Above 2501 g	50	100	49	98.0	1	2.0

Table 3. *Body Weight, Stature, and Psychomotor Development of Triplets*

Birth order	Sex	Birth weight (g)	Conditions after birth	Diseases suffered	Age at examination (years)	Body-weight percentiles	Stature percentiles	Psychomotor development
I	M	1580	serious	anemia, rickets, otitis m.	2.5	below 10	25-50	arrested motor development
II	M	2180	good	anemia, rickets	2.5	10-25	10-25	normal
III	F	2230	good	rickets	2.5	25-50	50-75	normal
I	M	2100	good	rickets (traces), pneumonia	4	10-25	below 10	normal normal
II	M	1700	serious	anemia, rickets	4	below 10	below 10	normal
III	M	2060	good	rickets (traces) pneumonia	4	10-25	50-75	normal

of triplets, and 20 children from multiple pregnancies of which only one child had survived. The age of the children examined was 6 months to 12 years. In 101 children birth weight was below 2200 g, while 65 children weighed more than 2201 g. A sample of 50 children from single pregnancies (26 males and 24 females) with a birth weight of more than 2501 g was the control group.

An interview taking into account the development of motor functions, the diseases suffered, and the living conditions, was taken with all children. General examination was carried out. The development of the child's motor fitness was assessed by means of tests selected from Buehler and Hetzler's, and the evaluation of the stature and body weight for the given age and sex were performed in percentiles using Fanconi's tables (Fanconi and Wallgren 1967).

RESULTS AND DISCUSSION

The results are shown in the Tables. It may be noted that all but one of the children with arrested psychomotor development were born of a multiple pregnancy, and most of them (18 out of 23) with a low birth-weight. They also had a complicated course of the neonatal period as well as serious general illnesses in the infantile period liable to have a bearing on their further development. Anemia, rickets, otitis media, bronchitis and pneumonia, belong to the most frequent diseases of the infancy and early childhood in children from multiple pregnancies. Permanent lesions of the central nervous system were found in two cases in children from multiple pregnancies with low birth-weight (1200 and 1300 g).

In most case the development of full-term infants from multiple pregnancies was normal, excepting one couple of male twins (11 years old), with a birth weight of 2330 and 2790 g, who were arrested in their psychomotor development, extremely neglected, and living under very poor environmental conditions (the mother suffers from schizophrenia and the father is ill with tuberculosis). The arrested psychomotor development of these children may be set in connection with the family taints as well as with the poor living conditions.