

Palpebral fissure length in newborn infants

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Palpebral fissure length was measured in 475 neonates. Mean \pm 2 S.D. values according to gestational age are tabulated.

Short palpebral fissure is a non-specific abnormality noted in several multiple malformation syndromes [4], and especially in the fetal alcohol syndrome [2, 3, 5]. The only up-to-date standards for palpebral fissure length

according to gestational age are those of Jones et al [1], obtained recently on 200 term and 60 premature newborn infants. Here we report on measurements performed on 475 neonates of various gestational ages.

TABLE I

Mean \pm 2 S.D. values in mm of length of the palpebral fissure in neonates of various gestational ages

Gest. age (week)	Neonates examined n	Mean	\pm 2 S.D.
30	11	14.1	1.7
31	18	14.3	1.9
32	26	14.8	2.0
33	23	15.8	2.5
34	26	16.1	2.7
35	19	16.8	2.8
36	24	17.2	2.9
37	38	17.8	2.8
38	47	18.5	2.8
39	64	19.0	2.7
40	88	19.3	2.9
41	50	19.5	3.0
42	29	20.1	2.8
43	12	20.2	2.9

MATERIAL AND METHODS

White newborns, 251 males and 224 females between two and five days of age were examined. Their gestational age varied between 30 and 43 weeks. No congenital disorder was observed in any of the infants. The greatest horizontal axis of the eye from the inner to the outer canthus was determined with blunt compasses. In a part of the cases parallel measurements were made with the edge of a caliper ruler: no significant difference was found between the two methods. Measurements of both eyes were taken when the baby was relaxed. Since there was no difference between the right and left palpebral fissures, only values for the right side were finally considered.

RESULTS AND DISCUSSION

The palpebral fissure was somewhat longer in boys than in girls at every gestational age, but the difference was practically insignificant; the sex difference did not exceed the methodical variation of the measurement. Thus only the combined mean ± 2 S.D. values are summarized in Table I.

Comparing our results to those of Jones et al. [1], the values for the gestational age of 32 weeks were equal

in the two series. From the 34th week of pregnancy the palpebral fissure proved to be 0.5 to 1.0 mm longer in the Hungarian neonates. At the same time the ranges were almost identical, which suggests that the slight difference was not due to errors of measurement, but rather to a geographical variation. This underlines the need of local normal standards in objectivating congenital abnormalities.

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