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Prevalence of retinopathy of prematurity in Switzerland

What do we know about the prevalence of Retinopathy of Prematurity (ROP) in Switzerland?

On the basis of an international inquiry¹ covering *prematures* of <1000 g birthweight born between 1974 and 1986, the following Swiss figures are known: 228 of 525 registered *prematures* survived (41%) and 151 were examined by an ophthalmologist (66% of survivors). 50 children (33% of survivors) had some stage of ROP.

As of December 31, 1984, 262 children aged 7-16 years were being schooled in Swiss educational institutions for the visually handicapped. 32 (12%) of them had severe stages of ROP. 22 of these (69%) were totally blind. The 22 blind children with ROP corresponded to 25% of all blind children (n=89) in these institutions.

One child had been born at 34 weeks gestational age, all others at 32 or less. No child had a birthweight of more than 2000 g². These figures are likely to be an underestimate, since the populations being cared for in institutions for severely affected children with multiple handicap were not investigated. Blind children living at home were also not considered.

Over the last 10 years, 702 *newborns at risk for ROP* born in Berne were examined by an ophthalmologist. 165 (23.5%) had some stage of ROP (stage 1: 11%, stage 2: 8%, stage 3: 3%, stage 4: 0.7%, stage 5: 0.7%). 2 children between 1500 and 2000 g birth weight had stage 3 disease, no ROP-stage higher than 2 occurred in babies with birth weights above 2000 g.

The continuous survey of the Swiss Neonatology Group on *prematures*

below 1000 g shows an increase in the prevalence of ROP in Switzerland over the last years (table 1).

The number of liveborns <1000 g, their survival rate and the prevalence of ROP and of its advanced stages have clearly increased.

What should we know about ROP in the future?

We should be able to recognize an epidemic at its onset. Thus, *continuous registration* of the number of infants with ROP in their first year of life *must continue*. (Swiss Neonatology Group, *prematures* <1000 g.) For completeness, we should *extend the registration to all prematures up to 32 weeks gestational age/1500 g birth weight*.

For perfecting self-evaluation of the quality of our work as neonatologists, as well as for planning personnel and infrastructure needed for the education in visually handicapped children, *we need to know the further visual development of the babies with ROP throughout childhood*.

The ophthalmologists need more precise indications for early intervention aimed at preventing irreversible stages. Thus, they should know *whether the topographic localization and extent of the lesions*

years	1979-81	1983-85	1989-91
no. live borns	314	385	555
survivors, %	22	37	53
ROP all stages, %	- ¹⁾	16	33
ROP ≥ 3, %	-	2	6

¹⁾ data not collected

Table 1. Prevalence of ROP in *prematures* <1000 g in Switzerland.

could be predictors for the rapidity of the progression of the disease.

For *evaluating cryotherapy*, its frequency and its effectiveness (avoidance of progression of ROP) must be known³.

In order to achieve these goals, the motivated collaboration of neonatologists (Swiss Neonatology Group), ophthalmologists (hospital staff as well as private practitioners) and parents, is mandatory.

References

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