Ocular involvement in paediatric haemolytic uraemic syndrome

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PURPOSE
The aim of this study was to estimate the frequency and severity of ocular involvement in paediatric patients with haemolytic uraemic syndrome (HUS).

METHODS
The study was designed as an institutional, retrospective, observational case series. Charts for all 87 paediatric patients with HUS treated at the University Children's Hospital Zurich between 1995 and 2007 were reviewed. Patients with ocular involvement were identified and clinical findings presented.

RESULTS
Three of 69 examined patients with HUS showed ocular involvement. Ophthalmic findings in two children were consistent with bilateral Purtscher retinopathy, showing multiple haemorrhages, exudations and superficial retinal whitening. The third child presented with bilateral isolated central intraretinal haemorrhages as a milder form of ocular involvement. In one of the children with Purtscher retinopathy, laser photocoagulation was required for bilateral rubeosis irides and development of disc neovascularization. Longterm outcomes in the two severely affected children showed decreased visual acuity caused by partial atrophy of the optic nerves. In the milder case visual acuity was not impaired at any time.

CONCLUSIONS
A minority of paediatric patients with HUS developed ocular involvement. Acute ocular findings varied in severity from isolated intraretinal haemorrhages to Purtscher-like retinopathy with retinal ischaemia. Longterm complications included the development of neovascularizations and consecutive optic nerve atrophy. Although ocular involvement in HUS seems to be rare, physicians should be aware of this complication because of its possible vision-endangering consequences.