CASE REPORT

Abstract: The patient was a low birth weight infant with a history of renal failure. She was referred to our department 29 days after birth to undergo fundus examination. She experienced renal failure after undergoing a mydriatic test and needed medical treatment. Eyedrops containing phenylephrine were instilled several times and additional drops were also instilled during the fundal examination using an eyelid retractor, therefore the blood concentration of the drug was elevated sufficiently to contract the renal vessels, ultimately inducing renal failure. The present case suggests that since the use of mydriatic eyedrops in low birth weight infants could induce renal failure, the following points should be considered: 1) Mydriatic eyedrops should be used with caution by monitoring mydriasis and avoiding excessive instillation; 2) After instillation, the lacrimal region should be compressed to prevent the flow of mydriatic drops to the nasolacrimal canal; and 3) Vital signs should be monitored to check the onset of any adverse reactions for 12 hours after fundal examination. J. Med. Invest. 50: 203-206, 2003

Keywords: Renal failure, mydriatic drug, phenylephrine, retinopathy of prematurity
Renal failure caused by mydriatic drug

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![Graph showing urine volume and creatinine levels over time.](graph)

- *NCPAP* (nasal continuous positive airway pressure)
- *Artificial respiration management*

**Clinical Stage**
- **Stage 1**
- **Stage 2**
- **Stage 3**

**Fundus Examination**
- Arrow indicating fundus examination

**Laser Photocoagulation**
- Arrow indicating laser treatment

**Days after Birth**
- 25, 30, 40, 50, 60

- *Eyedrops containing tropicamide and phenylephrine were instilled several times.*

- *NCPAP: nasal continuous positive airway pressure*
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
K. Shinomiya et al. Renal failure caused by mydriatic drug