

TREATMENT OF REDLEG IN TADPOLES OF *PLEURODELES*

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Tubifex Worms sometimes carry bacteria which are pathogenic in salamanders. When such worms are fed to salamanders which have not previously been exposed to the pathogenic bacteria, and which have not become resistant to them, disease symptoms can develop, often very rapidly. The disease symptoms I have seen myself often resemble the 'molchpest' described by Reichenbach-Klinke and Elkan where first the skin and then the muscle of the limbs and tail are destroyed. The symptoms usually develop very rapidly but the animal remains alive for many days. I have found this disease responds well to treatment with co-trimoxazole.

More unusual is the development of 'red-leg' which is not associated with the enormous tissue destruction of 'molchpest', but with general haemorrhage and haemolysis. These symptoms can develop suddenly with the animal collapsing and unable to move. I have successfully treated tadpoles of *Pleurodeles*, which showed no signs of life except heartbeat, with the following bath:-

10 parts treatment bath : 1 part tadpoles
NaCl 6g L⁻¹
Ciprofloxacin 12m g L⁻¹
Gentamycin 20mg L⁻¹
Nystatin 10000 Units L⁻¹
Amprolium 3-84% 1 part per 100
Vitamin K (Menadiol Sodium Diphosphate) 1 mg L⁻¹

Because of the haemolysis, respiration failure is often the cause of the collapse. The tadpoles were therefore kept in pure oxygen. High temperatures make respiration more difficult both because oxygen concentrations in mucus are reduced at high temperatures and because metabolism is generally increased at high temperatures. However, I found the tadpoles deteriorated at low temperatures, probably because these favoured the growth of the bacteria and reduced the tadpoles immune response. The tadpoles were kept in oxygen at 30°C. I observed recovery between one and twenty four hours.

Both Ciprofloxacin and Gentamycin are bactericidal, but only Ciprofloxacin will penetrate the tissues effectively.

REFERENCES

Reichenbach-Klinke, H. & Elkan, E. (1965). *The Principal Diseases of Lower Vertebrates. Book 2. Diseases of Amphibians*. TFH Publications Inc. Hong Kong.