Light and electron microscopic observation of presumptive erythropoietic foci in the medaka yolk sacs

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Key Words: fish, embryo, yolk sac, erythropoiesis, hematology.

INTRODUCTION

Zebrafish, medaka, pufferfish, and cichlids are teleost fish models that are very useful for study of developmental genetics. Medaka is a small fish native to East Asia that is easy to cultivate, making it useful for laboratory procedures, and it has become a satisfactory model for hematological genetics (Koh et al., 2004).

In most vertebrate groups, primitive erythropoiesis first appears in the yolk sac (Zon, 1995). In this study, we present a histochemical characterization of the presence of an erythropoietic site in the medaka yolk sacs from 9 days post fertilization (dpf) through 13dpf using light and electron microscopy.

MATERIALS AND METHODS

Animals

Medaka, *Oryzias latipes*, orange-red type fish obtained from a local pet shop were held in a plastic aquarium (16 × 32 × 22 cm), with a common air source, at 26°C and fed Tetra-KilliMin (Tetra, Tokyo, Japan) daily. Fish were mated, and