NATURE OF COLLAGEN IN HAMSTER LIVERS INFECTED WITH

OPISTHORCHIS VIVERRINI

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE

(BIOCHEMISTRY)

IN THE

FACULTY OF GRADUATE STUDIES

OF

MAHIDOL UNIVERSITY

1984
ABSTRACT

An elevation in liver collagen content has been previously reported in hamsters infected by *O. viverrini*. Collagen in liver is mainly composed of type I and type III collagen and very small amount of type V. In normal hamster liver, the ratio of type I to type III collagen was found to be 2. Upon infection by *O. viverrini*, both type I and type III collagen increased with the infection time and remained unchanged at about 3 months after the infection. However, the increase in type III collagen was greater than type I collagen, resulting in changes in ratio of type I to type III collagen. This change was dependent on the infection time, i.e., the ratio of type I to type III collagen decreased gradually from 2 after 2 weeks of infection to 1.1 at 2 months after infection and remained unchanged at this value although the infection time was continued for 1 year. In addition, this ratio of 1.1 was not dependent on the severity of infection, since it was constant despite the increase in number of infected metacercariae or worms recovered. Type V collagen also increased in the infected liver. As with type I and type III collagen, the increase in type V collagen was dependent on the infection time. It increased about 4-fold at infection time of more than 3 months.