**AROMATASE ACTIVITY IN TISSUES FROM ADULT XENOPUS LAEVIS EXPOSED TO ATRAZINE**

Daniel L. Villeneuve†, Katherine K. Coa pyt, Margaret B. Murp hy†, Margriet Van der Zee†, Markus Heckert, Paul D. Jones, Robert Bruce, James Carr, Alan Hosmer†, Ronald J. Kendall†, Ernest Smith†, Keith R. Solomon™, Glen Van Der Kraak†, and John P. Giesy†

† National Food Safety and Toxicology Center, Department of Zoology, and Institute for Environmental Toxicology, Michigan State University, East Lansing, MI, 48824-1311, USA.

‡ Centre for Toxicology, University of Guelph, Guelph, Ontario, N1G 2W1 Canada.

ABSTRACT

The objective of this study was to determine aromatase activity in Xenopus laevis. Adult male and female X. laevis were exposed to atrazine (ATZ). Aromatase activity was determined in testosterone, brain, and ovary tissue samples. Exposure to ATM caused no significant changes in aromatase activity in any of the tissues tested. The results of the study do not support the hypothesis that exposure to ATM increases aromatase activity in X. laevis.

INTRODUCTION

Aromatase is an enzyme involved in the conversion of androgens to estrogens. Aromatase activity has been measured in a variety of animal species, including Xenopus laevis. Exposure to environmental chemicals, such as atrazine (ATZ), has been shown to affect aromatase activity in various tissues. However, the effects of ATZ on aromatase activity in X. laevis have not been extensively studied.

MATERIALS & METHODS

Animals

Female X. laevis were used in the study. Animals were randomly assigned to treatment and control groups. The study included 48 males and 48 females. Each group consisted of 12 males and 12 females.

Aromatase Assay

Aromatase activity was measured using a fluorometric assay. Tissue homogenates were prepared and assayed for aromatase activity. The assay was performed in triplicate for each sample. Aromatase activity was expressed as pmol of 17β-estradiol produced per mg of protein per hour.

RESULTS

The study results did not support the hypothesis that exposure to ATZ increases aromatase activity in X. laevis. Aromatase activity was not significantly different among treatments in any of the tissues tested. Aromatase activity was similar in all tissue samples from control and ATZ-exposed animals.

CONCLUSIONS

The study results do not support the hypothesis that exposure to ATZ increases aromatase activity in X. laevis. The study results suggest that exposure to ATZ does not affect aromatase activity in X. laevis.

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REFERENCES

See supplementary material.