Abortifacient Activity of B1912

TO THE EDITOR:

A brief comment on the failure of Reich and de la Cruz to demonstrate B1912 abortifacient activity in mice is as follows. Differences are apparent between the Baltimore and Cebu experiments involving methodology, experimental design, and mouse strain reproductive capacity. While complete details of the Baltimore experiments will be published elsewhere, the following differences are cited.

Dietary dose calculations used by Morrison and Marley refer to B1912 at 0.05% (w/w) of moisture-free mouse diet (Ralston Purina Company, powdered chow #5001) in which the B1912 was blended in a micronized powder form to accelerate absorption.

The Baltimore experiments indicate that a critical time point during embryogenesis was present in order to demonstrate abortifacient activity. The results of Reich and de la Cruz show that they have either missed this time point (Experiment 2) or have pre-induced metabolism to confer protection against the embryotoxic metabolites of B1912 (Experiment 1). We agree with the lack of B1912 effects when added during the weight-gain period (Experiment 3).

International Journal of Leprosy

1979

However, perhaps the most significant difference is found in comparing the reproductive capacity of the two inbred mouse strains used, i.e., the CD-1 versus the NAMRU strain. The CD-1 litter sizes were routinely between 10 to 12 whereas the NAMRU strain litter sizes were 20 to 80% less in number. Since reproductive loading produces marked degrees of metabolic and hormonal change in mice, it would appear that the Baltimore versus Cebu experiments do not have reproductive rate comparability. Thus it would not be surprising to find an all-or-none difference in the embryotoxic effects of B1912 metabolites.

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