CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

76-092

BIOEQUIVALENCE REVIEW(S)

OFFICE OF GENERIC DRUGS
DIVISION OF BIOEQUIVALENCE

#9

ANDA # : 76-092 SPONSOR : Bioniche Pharma
U.S. Agent-Robert Pitts

DRUG AND DOSAGE FORM : Ketamine HCL Injectable,USP

STRENGTH(S) : 50 mg/mL in 10 mL vials

TYPES OF STUDIES : Waiver

CLINICAL STUDY SITE(S): **N/A**
ANALYTICAL SITE(S) : **N/A**

STUDY SUMMARY : See Review

DISSOLUTION : See Submission

DSI INSPECTION STATUS

Inspection needed: YES / NO	Inspection status:	Inspection results:
First Generic _____	Inspection requested: (date)	
New facility _____	Inspection completed: (date)	
For cause _____		
Other _____		

PRIMARY REVIEWER : Andre Jackson BRANCH : I

INITIAL : AJ DATE : 4/25/01

TEAM LEADER : Y.C. Huang BRANCH : I

INITIAL : /S/ DATE : 4/26/2001

for DIRECTOR, DIVISION OF BIOEQUIVALENCE : DALE P. CONNER, Pharm. D.

INITIAL : /S/ DATE : 4/30/2001

BIOEQUIVALENCY COMMENTS TO BE PROVIDED TO THE APPLICANT

ANDA: 76-092 APPLICANT: Bioniche Pharma
(U.S. Agent Robert Pitts)

DRUG PRODUCT: Ketamine Hydrochloride Injectable USP, 50 mg/mL in 10 mL vials

The Division of Bioequivalence has completed its review and has no further questions at this time.

Please note that the bioequivalency comments provided in this communication are preliminary. These comments are subject to revision after review of the entire application, upon consideration of the chemistry, manufacturing and controls, microbiology, labeling, or other scientific or regulatory issues. Please be advised that these reviews may result in the need for additional bioequivalency information and/or studies, or may result in a conclusion that the proposed formulation is not approvable.

Sincerely yours,

/s/

Dale P. Conner, Pharm. D.
Director, Division of Bioequivalence
Office of Generic Drugs
Center for Drug Evaluation and Research

Ketamine Hydrochloride
Injectable USP, 50 mg/mL
filled in 10 mL vials
ANDA #76-092
Reviewer: Andre Jackson
V:\Firmsam\Bioniche\Ltr&Rev\76092W.301

Bioniche Pharma
U.S. Agent-Robert Pitts
Athens, Georgia
Submission Date:
March 8, 2001

Review of a Waiver Request

History:

The original submission on December 21. 2000 was for three strengths [redacted], 50 mg/mL and [redacted]. The Office of Generic Drugs responded to this submission with a refuse to file for the [redacted] and [redacted] strengths (see FDA letter February 16, 2001). The firm subsequently withdrew the [redacted] and [redacted] strengths.

Introduction:

Ketamine Hydrochloride is a rapid-acting nonbarbiturate general anesthetic. The drug product is a solution intended solely for intravenous and intramuscular administration.

The firm has requested a waiver of *in vivo* bioequivalence study requirements for its drug product, Ketamine Hydrochloride Injection, USP, 50 mg/mL, in 10 mL vials.

Table 1. Formulation Comparison

	Test	**Reference**
	Ketamine HCl	Ketalar®
	(mg/mL)	(mg/mL)
Ketamine, USP (Hydrochloride)	50.0	50.0
Benzethonium Chloride	0.1	0.1

Comments

1.The composition of the test (Ketamine Hydrochloride Injection, USP, 50 mg/mL, filled in 10 mL vials) and reference(Ketalar^R, 50 mg/mL, filled in 10 mL vials) products are presented in Table 1. Both test and reference products contain the same amount of active and inactive drug ingredients.

2.The route of administration, dosage form, and strength of the proposed Bioniche Pharma's products are identical with that of the reference listed drug Ketalar^R marketed by Parke-Davis.

Recommendation:

1.The Division of Bioequivalence agrees that the information submitted by Bioniche Pharma demonstrates that Ketamine Hydrochloride Injection, USP, 50 mg/mL, filled in 10 mL vials, and the reference product, Ketalar^R, 50 mg/mL, filled in 10 mL vials falls under 21 CFR Section 320.22 (b)(1)of the Bioavailability/Bioequivalence Regulations. The waiver of in vivo bioequivalence study for , 50 mg/mL, filled in 10 mL vials of the test product is granted. Therefore, from the bioequivalence point of view, the Division of Bioequivalence deems Ketamine Hydrochloride Injection, USP, 50 mg/mL, filled in 10 mL vials manufactured by Bioniche Pharma to be bioequivalent to the reference products, Ketalar^R , 50 mg/mL, and filled in 10 mL vials manufactured by Parke-Davis.

Andre Jackson, Ph. D.
Division of Bioequiva...
Review Branch I

/S/

RD INITIALED YC HUANG
FT INITIALED YC HUANG

/S/ Date: 4/26/2001

Concur: /S/ Date: 4/30/2001
Dale P. Conner, Pharm.D.
Director, Division of Bioequivalence

fw

cc:ANDA # 76-092 (original, duplicate), HFD-652 (Jackson, Huang), HFD-650(Director), Drug File, Division File