



**DEPARTMENT OF THE AIR FORCE**  
AIR EDUCATION AND TRAINING COMMAND

AIR1.970129.003

17 September 1996

MEMORANDUM FOR HQ AFMOA/SGOT

FROM: 81 MDOS/SGOKI  
301 Fisher Street, Rm 1A132  
Keesler AFB, MS 39534-2519

SUBJECT: Update of DoD Human Radiation Experiment Events (Your Ltr. dated 20 Aug 96)

Enclosed is the abstract for Clinical Investigation 542, Cistenography Using Ytterbium (Yb-169) DTPA (Pentetate Trisodium Calcium Yb 169) that you requested. My POC for questions is Mr. Brehm at DSN 597-7926.

A handwritten signature in cursive script, appearing to read "Alfred S. Graziano Jr.", written in black ink.

ALFRED S. GRAZIANO JR., Major, USAF, BSC  
Director, Clinical Research Laboratory

Attachment:  
Abstract

**81st Medical Group, Keesler Air Force Base MS**

<u>Start Date</u>	<u>Number</u>	<u>Title</u>
19974	81MG008	Cistenography Using Ytterbium (Yb-169) DTPA (Pentetate Trisodium Calcium Yb 169)

**ABSTRACT:** From 27 June 1974 to 7 January 1975 researchers at the USAF Medical Center at Keesler Air Force Base, MS, possibly at least partially sponsored by the 3M Company, studied the use of ytterbium-169 DTPA in cisternography, a radiographic technique for studying the basal cistern of the brain. Six patients participated in these studies and each received between 0.5 and 1.5 mCi of ytterbium-169 by intraspinal (lumbar) injection. The name, but no other identifying information, of one patient is known. That name does not appear in the electronic patient records currently maintained by the 81st Medical Group. Neither the protocol document, the informed consent documents nor publications by the principal investigator were found after an investigative search of records at Keesler Air Force Base. The principal investigator left Keesler Medical Center and continued the research at the Armed Forces Radiobiology Research Institute in Bethesda, MD.

**DOCUMENTS:** None.



**DEPARTMENT OF THE AIR FORCE**  
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21 October 1994

MEMORANDUM FOR : HQ AFMOA/SGPT  
170 Luke Avenue Suite 400  
Bolling AFB DC 20332-5113

FROM: 81st MDG/SGSAI  
711 Third Street  
Keesler AFB MS 39534-2629

SUBJECT: Radiation Exposure Studies, Call for Back-Up Material on Pre - 1974 Studies

In response to your 14 October FAX (Subject: Radiation), enclosed are copies of all the materials we have found for the 81st Medical Group related to Clinical Investigation Proposal 542, "Cisternography Using Ytterbium (Yb 169) DTPA (Pentetate Trisodium Calcium Yb 169)." The enclosed material, with the exception of the Letter To the Editors of *Seminars in Nuclear Medicine*, was retrieved from permanent storage in the Records Staging Area of Information Management Flight. A search of records in our Tumor Registry of patients with brain tumors for the period 1974 to 1976 contained no references to the subject investigation. Records are maintained in the Nuclear Medicine section for 5 to 7 years and then forwarded to the Information Management Flight for disposition. Documentation of the final disposition of records from Nuclear Medicine for the period 1974 to 1997 made no reference to records of the subject investigation.

Indications from the enclosed documentation suggest that Dr McIndoe continued his research at the Armed Forces Radiobiology Institute in Bethesda, Maryland. Hopefully, their search will provide more information about this study.

A MEDLINE search for the period 1966 to 1984 produced no articles written by Dr. McIndoe. A 1977 Letter to the Editors of *Seminars in Nuclear Medicine* was uncovered by a MEDLINE search using "Ytterbium" as a Title Search Word. It is included because it was written by the manager of the 3M Company Nuclear Medicine Laboratory and the enclosed documentation indicates that this research was at least partially supported by the 3M company.

*Rocky D. Calcote*  
ROCKY D. CALCOTE, Lt Col, USAF, BSC  
Flight Chief  
Clinical Research Laboratory Flight

FORM FD 1571

PROTOCOL MRP 10-

Clinical Evaluation of Ytterbium (Yb 169) DTPA  
For Cisternography Studies

Patient	Hospital No	Injection Date	Ytterbium (Yb 169) DTPA		Results of Study	
			Lot No	Dose (mCi)	Good	Poor
1	30-1	6-27-74	AO 75003	0.5	x	
2	30-2R	8-6-74	AO 75003	0.5	x	
3	30-3	10-8-74	AO 78003	0.5	x	
4	31-2	11-4-74	AO 78003	1.0	x	
5	31-3	11-12-74	AO 79003	0.55	x	
6	31-4	1-7-75	AO 81003	1.5	x	
7						
8						
9						
10						

Comments Regarding Procedural Difficulties or Adverse Patient Responses:

Patient

Comments

[REDACTED]

Only difficulty was in getting spinal fluid in lumbar area. Neurologist administered dose via cranial injection into left ventricle. Study then satisfactory.

Hospital USAF Med Ctr Keesler

*Darrell W. McIndoe*  
 Signature DARRELL W. McINDOE, Col  
 USAF, MC  
 Clinical Investigator