AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 612
(N-21)

Introduced by: New York

Subject: UN International Radionuclide Therapy Day Recognition

Referred to: Reference Committee F

Whereas, The General Assembly of the United Nations advocates for proclaiming International days of recognition to highlight specific values of worldwide human interest; and

Whereas, The United Nations General Assembly documents describe the purpose of proclaiming “International Days” as follows: “International days are occasions to educate the general public on issues of concern, to mobilize political will and resources to address global problems, and to celebrate and reinforce achievements of humanity”; and

Whereas, The year marks the 80th year from the first recorded use of radioiodine therapy to treat human disease; and

Whereas, Saul Hertz, MD (1905 - 1950) discovered the medical uses of radionuclides, and his breakthrough work with radioactive iodine (RAI) created a dynamic paradigm change integrating the sciences of physics, biology, physiology and medicine; and

Whereas, Radioactive iodine (RAI) is the first and remains the Gold Standard of targeted cancer therapies; and

Whereas, In early 1941, Dr. Hertz administered the first therapeutic treatment of (Cyclotron-produced) radioactive iodine (RAI) at the Massachusetts General Hospital, which led to the first series of twenty-nine patients with hyperthyroidism being treated successfully with RAI; and

Whereas, Dr. Hertz expanded the successful use of RAI of treating hyperthyroidism and Graves‘ disease to the treatment of thyroid cancer in 1946; and

Whereas, This work generating and utilizing radioactive material for medical therapy leaves an enduring legacy, impacting countless generations of patients, numerous institutions worldwide and setting the cornerstone for the field of Nuclear Medicine, and has for all future generations, augmented and forever altered the approach to medical therapies; and

Whereas, This novel work marks the advent of what we now recognize as modern medicine, utilizing molecular medicine and the ever evolving promise of targeted molecular therapies for the treatment of human disease; and

Whereas, To appropriately recognize and honor this groundbreaking scientific and medical breakthrough on its 80th year anniversary, and to honor Dr. Saul Hertz and to remember and celebrate this extraordinary accomplishment; therefore be it

RESOLVED, That our American Medical Association support the efforts of the American College of Nuclear Medicine to create and introduce a United Nations General Assembly (UNGA) Resolution for the creation of a new International Day of recognition with the suggested name of "International Radionuclide Therapy Day." (Directive to Take Action)

Fiscal Note: Minimal - less than $1,000

Received: 10/11/21

AUTHORS STATEMENT OF PRIORITY

The discovery of radionuclides and their use in medical applications cannot be extolled loud enough. The number of lives that have been saved because of this discovery are too many to count. AMA should support the efforts to declare this an International Day of recognition. The uses of radionuclide therapy continue to be expanded and discovered and have benefitted innumerable patients. An entire medical specialty has been built around this discovery and its medical use, that should be honored.

Perhaps of more overall impact, this is a chance to highlight the overall importance of the science of the Practice of Medicine, nationally and internationally.

This Resolution fits the Top Priority criteria as it is:
1. Within our AMA mission plan of facilitating education to the public about the importance of evidence-based medicine
2. Requires new policy to implement
3. No current policy exists on this topic, and it is an advantageous issue on which to have policy
4. AMA action will have a positive impact
5. AMA is most appropriate body to bring this issue forward.

Also, delaying this Resolution until June would necessarily have the negative impact of delaying the development of a UNGA Resolution for an additional year, due to UN Resolution submission schedule.

Another important consideration for urgent timing is that Barbara Hertz, the daughter of Saul Hertz, is still alive and well and we should want to get this done while she can still enjoy and celebrate this commemoration of her father's work.

A few References for interest:
Hertz B. A tribute to Dr. Saul Hertz: The discovery of the medical uses of radioiodine. *World J Nucl Med*. 2019;18(1):8-12. doi:10.4103/wjnm.WJNM_107_18
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https://endocrinenews.endocrine.org/january-2016-thyroid-month-the-saga-of-radioiodine-therapy/
https://www.intechopen.com/books/thyroid-cancer-advances-in-diagnosis-and-therapy/dr-saul-hertz-1905-1950-discovers-the-medical-uses-of-radioactive-iodine-the-first-targeted-cancer-t
Radioactive Iodine in the Study of Thyroid Physiology. VII. The Use of Radioactive Iodine Therapy in Graves' Disease. (Dec. 1946)
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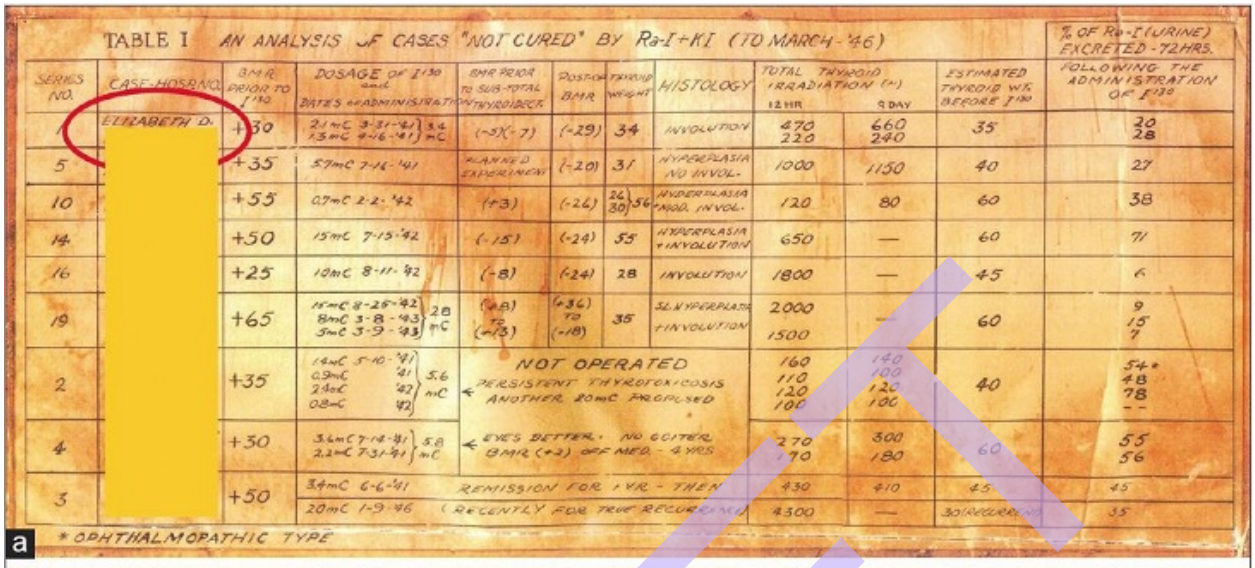

TABLE I AN ANALYSIS OF CASES "NOT CURED" BY Ra-I+KI (TO MARCH-'46)

SERIES NO.	CASE-HOSP.NO.	BMR PRIOR TO I¹³⁰	DOSAGE OF I¹³⁰ and DATES of ADMINISTRATION	BMR PRIOR TO SUB-TOTAL THYROIDECT.	POST-OP BMR	THYROID WEIGHT	HISTOLOGY	TOTAL THYROID IRRADIATION (r) 12 HR	9 DAY	ESTIMATED THYROID WT. BEFORE I¹³⁰	% OF Ra-I (URINE) EXCRETED-72 HRS. FOLLOWING THE ADMINISTRATION OF I¹³⁰
1	ELIZABETH D.	+30	2.1 mC 3-31-'41 } 3.4 1.3 mC 4-16-'41 } mC	(-3)(-7)	(-29)	34	INVOLUTION	470 220	660 240	35	20 28
5		+35	5.7 mC 7-14-'41	PLANNED EXPERIMENT	(-20)	31	HYPERPLASIA NO INVOL.	1000	1150	40	27
10		+55	0.7 mC 2-2-'42	(+3)	(-26)	26 30 } 56	HYPERPLASIA +MOD. INVOL.	120	80	60	38
14		+50	1.5 mC 7-13-'42	(-15)	(-24)	55	HYPERPLASIA +INVOLUTION	650	—	60	71
16		+25	1.0 mC 8-11-'42	(-8)	(-24)	28	INVOLUTION	1800	—	45	6
19		+65	1.5 mC 8-26-'42 } 2.8 BMC 3-8-'43 } mC 5 mC 3-9-'43 }	(+8) TO (+13)	(+36) TO (-18)	35	SL HYPERPLASIA +INVOLUTION	2000 1500	—	60	9 15 7
2		+35	1.4 mC 5-10-'41 } 5.6 0.9 mC '41 } 2.4 mC '42 } mC 0.8 mC '42 }	NOT OPERATED ← PERSISTENT THYROTOXICOSIS ANOTHER 20 mC PROPOSED				160 110 120 100	140 100 120 100	40	54* 48 78 --
4		+30	3.6 mC 7-14-'41 } 5.8 2.2 mC 7-31-'41 } mC	← EYES BETTER, NO GOITER, BMR (+2) OFF MED. - 4 YRS.				270 170	300 180	60	55 56
3		+50	3.4 mC 6-6-'41	REMISSION FOR 1 YR - THEN				430	410	45	45
			20 mC 1-9-'46	(RECENTLY FOR TRUE RECURRENCE)				4300	—	30 (RECURRENT)	35

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* OPHTHALMOPATHIC TYPE

TABLE II-ANALYSIS OF 20 CASES "CURED" BY Ra-I + KI ON BASIS OF EXAMINATION MARCH 31, 1946

SERIES NO.	CASE-HOSP. NO.	DOSE OF I¹³⁰ and DATE OF ADMINISTRATION	BMR BEFORE I¹³⁰	BMR LEVEL OFF IODIDES	TIME OFF IODIDES	THYROID SIZE '46	ESTIMATED THYROID WT. (Gm.)	% OF Ra-I EXCRETED 72-HOURS	ESTIMATED IRRADIATION (r) 12 HOUR	8 DAYS*
6		2.3 mC 7-24-'41 } 4.0 1.7 mC 7-30-'41 } mC	+45	DEC.-'42 (-9) MAY-'43 (-16) JAN.-'46 (-7)	4 YRS.+	N	45	35 22	320 280	390 300
7		ET 9) 1.4 mC 8-19-'41 } 2.9 1.5 mC 9-21-'41 } mC	+65	1-8-'46 (-6)	4 YRS.	N	45	3 20 (?)	260 260 (?)	280 220 (?)
8		ET 9) 1.6 mC 9-24-'41	+30	7-17-'45 (-3) 5-27-'46 (+4)	7 MOS	FIRM 2 X N	40	15	300	250
9		4.9 mC 11-26-'41	+30	5-8-'45 (-10)	4 YRS.	N	60	17	650	420
11		5.8 mC 4-9-'42	+37	7-9-'42 (-12) 2-24-'44 (-9) 2-3-'46 (-13)	3.5 YRS.	N	60	17	750	380
12		7.5 mC 5-15-'42	+55	'45 (+11) 2-3-'46 (-13)	3 YRS.	HARD 1.5 X N	60-75	26	950	500
13		1.2 mC 6-9-'42	+30	3-'43 (+6) 2-3-'46 (-10)	3 YRS.	N	40	71	750	
15		1.6 mC 8-11-'42 } 1.0 4 mC 8-11-'42 } mC	+35	4-'45 (-6) 2-3-'46 (+2)	10 MOS.	N	40	10	2000	
17		1.3 mC 8-13-'42	+50	6-10-'44 (-15) 1-6-'46 (-9)	3 YRS.+	N	60	14	1300	
18		10.5 mC 8-15-'42	+35	8-22-'44 (-18) 2-16-'46 (+1)	3 YRS.+	N	40	15	2000	
20		1.0 mC 11-14-'42	+50	4-3-'45 (-1) 2-16-'46 (-5)	2 YRS.+	N	45	20	1600	
21		1.4 mC 11-20-'42	+45	1-8-'46 (-13)	3 YRS.+	N	50	15 (?)	2000	
22		1.3 mC 3-9-'43	+20	6-30-'43 (-8)	2 YRS.+	"?N" (LMB)	55	33	2200	
23		8 mC 3-15-'43 } 18 10 mC 3-16-'43 } mC	+55	6-9-'43 (-11) 2-16-'46 (-3)	2 YRS.+	FIRM 1.5 X N	75	76 67	500	
24		10.5 mC 3-26-'43 } 15 4.6 mC 3-27-'43 } mC	+40	12-'45 (-5)	2 YRS.+	N (DR. J.C.) (ZILHARDT)	50	57? 31	1000	
25		1.6 mC 4-2-'43	+44	9-28-'44 (-7) 4-27-'45 (+9) 3-20-'46 (+4)	2 YRS.+	N (DR. J.C.) (AUG)	50	20.6 63.0	750	
26		1.2 mC 4-6-'43	+39	'45 (-8) 1-16-'46 (+2)	2 YRS.+	N	45	85	350	
27		1.3 mC 4-12-'43	+40	7-17-'45 (-16) 2-15-'46 (-10)	2 YRS.+	N	50	33	1600	
28		10.5 mC 4-13-'43 } 21 11.0 mC 4-13-'43 } mC	+55	12-'45 (-15) 2-3-'46 (+6)	2 YRS.+	N	75	---?	2000	
29		8 mC 3-29-'43 } 12 4 mC 3-30-'43 } mC	+30	2-'46 (+4)	2 YRS.+	N	55	10 53 (?)	1200 250	

* 8 DAY ISOTOPE FIGURES ASSUME NO LOSS OF IODINE FROM THYROID DURING DECAY; THEY ARE THEREFORE EXCESSIVE. THEY WERE NOT MEASURED FOR CASES 13-29 --

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