

# MGH **HOTLINE**

31 January 1991

A publication of the  
News and Public Affairs Office  
of Massachusetts General Hospital  
Bartlett 9, Extension 6-2206

## **50th anniversary of discovery of "atomic cocktail" to treat overactive thyroid gland**

Three months after her husband was inaugurated as President of the United States, Barbara Bush had lost 18 pounds. Mrs. Bush did not have the First Lady jitters but symptoms of hyperthyroidism or Graves disease.

The thyroid gland regulates metabolism, and those who suffer hyperthyroidism (overactivity of the thyroid gland) experience anxiety, weight loss, excessive perspiration, and eye irritation. They eventually develop swelling at the base of the windpipe.

Instead of undergoing surgery for removal of the defective gland, Mrs. Bush entered Walter Reed Army Medical Center and drank a solution of what some physicians refer to as an "atomic cocktail." She left the medical center two hours later, with no side effects from the treatment and ready to return to business as usual.

Mrs. Bush ingested radioactive iodine. The ease and safety of her treatment was due to the collaborative efforts of Dr. Saul Hertz (deceased), Chief of the Thyroid Clinic from 1931 to 1943, and Massachusetts Institute of Technology (MIT) physicist, Dr. Arthur Roberts. Their research was supported by MGH

Chief of Medicine Dr. James Howard Means.

Fifty years ago this month, Dr. Hertz administered the first dose of radioactive iodine for the treatment of Graves disease. His discovery that radioactive iodine could be used as a diagnostic tool helped usher in the field of nuclear medicine.

Even ancient civilizations took advantage of the relationship between iodine and the thyroid gland. People with enlarged thyroid glands often sought relief by ingesting seaweed and burnt sponge—both sources of iodine.

turn to "Atomic Cocktail" page 3

## **Inside**

**Helping MGHers cope with war**  
page 2

**Letter from the field**  
page 3

**What's happening**  
page 3

**Retirements**  
page 4