



Anne Pappenheimer Forbes



On Feb 26, 1992, the flags at Harvard Medical School and Massachusetts General Hospital flew at half-mast--for someone the leaders at these institutions probably wouldn't have talked to when she first showed interest. But the implied judgment wasn't personal in any way; it's just that at the time Franklin Roosevelt was elected to the presidency, his university had not discovered the potential of women to be physicians.

Anne Pappenheimer Forbes attended Radcliffe College where she majored in biological chemistry, the College of Physicians and Surgeons for medicine, and Johns Hopkins Hospital for her internship in internal medicine. She first came to Massachusetts General Hospital in 1939 as an unpaid observer (measuring urinary 17-ketosteroids) in the laboratory of Fuller Albright. When the men in the group were swept into World War II, Anne

was accepted by Albright as a colleague, and entered what must be one of the most productive careers anyone has ever had. In 11 years, she had five children, and was elected to one of the world's most exclusive clubs, the American Society for Clinical Investigation. In this she was one of the very first women to be so honored--a fact to which she incidentally would have paid no attention at all. It's also remarkable that this external recognition occurred before she had her first appointment as instructor at Harvard Medical School.

The laboratory in which Anne Forbes found herself was, to be minimalist, incredible. A small group of people were working on the parathyroid glands; calcium and phosphorus metabolism; kidney stones and bone disease; menopause and osteoporosis; pituitary tumors causing lactation and amenorrhea; adrenal disorders and new treatments for Cushing's syndrome; gonadal dysgenesis and Klinefelter's syndrome; anchoring reproductive endocrinology in medicine rather than in obstetrics and gynecology; imagining resistance to the action of a hormone as a mechanism of hormone deficiency; and suggesting ectopic-hormone production as a cause of hormone excess.

There must be few eras in intellectual history when one small group gently drew away as many of nature's

masks.

These then were two domains of Anne Forbes' productivity. In one, there could be no doubt of her contribution. Bearing and nurturing five children is hardly a covert operation (especially when you go home in the middle of the day to nurse the most recent, and then return to the hospital). But all of the investigative achievements of which she was a part occurred in the glare of the shining beacon named Fuller Albright. Few anywhere would have found it easy to be recognized in that setting. And that is the importance of Anne's election to the young turks. That group has always demanded two things of its novitiates--creative achievement in investigation and scholarly independence; that is, the person must have done a significant body of work on his or her own. Thus, the group that met in 1950 to consider Anne Forbes' candidacy did our work for us. They recognized Anne Forbes' achievement, and 40 years later we can still revel in that accolade.

Anne Forbes had a brilliant incisive mind always searching for a better explanation or description. She was devoid of personal ambition for fame, power or wealth. She worked hard at what she considered important, and wasted no time on the petty interpersonal frictions common to many group efforts. She helped and shared with everyone because that was right. Sometimes she presented the papers and sometimes syndromes were named for her (Forbes-Albright syndrome of galactorrhea and amenorrhea), but she never sought preeminence among the other fine minds attracted to the Albright group. In brief, Anne was ideally primed for the clinical group dominated by Fuller Albright's exquisite intuition. Her work greatly added to the testing of Albright's concepts of the causative factors in diseases of the endocrine system.

Beginning in the late 1950s, Anne Forbes played a new role. Walter Bauer was creating his Department of Medicine, and he considered his most able residents as stem cells, capable of differentiating in any way he felt was needed. To those of us he directed into endocrinology (Holly Smith, Steve Krane and Daniel Federman), Anne Forbes was EGF (endocrinology growth factor) personified. She helped each of us and then a generation of others to learn her clinical discipline. Mitch Rabkin, Andy Frantz, Jorgen Jacobsen, Eric Engel. Klaus Zuppinger, Michel Vallotton--with these and others she went into new research and continued to publish actively as a mentor and friend.

We want to comment on the qualities we associate with Anne as a doctor. First, she was utterly dedicated to her patients. She had an extraordinary memory for details, she was always available, and she blurred the modern distinction between specialist and generalist by providing everything her patients needed, or seeing that they obtained it. Second, Anne was a terrific observer. Despite her modesty, she had the security to recognize something new, something that didn't fit the picture, and thus, led to a new hypothesis or explanation. Daniel Federman remembers where they were standing when they found a pseudohypoparathyroid patient who also turned out to have hypothyroidism. Anne wondered whether the mechanism of the hypothyroidism could be similar to that underlying the hypoparathyroidism, namely, end organ resistance. That hypothesis was validated 15 years later when the G-protein defect

underlying pseudohypothyroidism was identified.

Finally, Anne was a true clinical investigator. She tried to draw a lesson from each patient's story. One cooperative patient with an endocrinopathy was considered a valued partner and studied for his or her good as well for the advancement of knowledge.

Anne Forbes had a long and happy life with her husband, Will. They raised five children in a Charles Addams-like mansion in Milton, Mass. and on the Forbes family island of Naushon, off Cape Cod. Each summer she entertained her friends, colleagues and students with a classic clambake over a fire of driftwood, rocks and seaweed on the shore of Naushon Island. In these two venues, Anne Forbes rode horses, raised animals, split wood, sheared sheep, carded wool, and knitted sweaters. Her home with Will was at once an international salon, a lodging for generations of foreign endocrine fellows, and a nursery for legions of Forbes children and grandchildren. Anne's death, at home, was part of her life of realism, integrity and strength. Her life was made up of everything a doctor and a woman could hope for.

Respectfully submitted,

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