■ SPECIAL ARTICLE

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Austin Lamont and the Evolution of Modern Academic American Anesthesiology

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AUSTIN Lamont's distinguished career as an anesthesiologist was a direct result of both his unique personality and the circumstances in which the struggling medical specialty of anesthesiology found itself during the span of his professional career. Although it is undeniably personal, the story of his achievements at The Johns Hopkins and the University of Pennsylvania Schools of Medicine also in many ways provides a general synopsis of the evolution of modern American academic anesthesiology from its beginnings, in the first third of this century, to its maturation 40 yr later. Lamont insisted that an anesthesiologist's education must include a large measure of applied clinical science, and he was, in large part, responsible for the formation of the Association of University Anaesthetists, an organization that established the academic and professional credibility of physicians who devoted themselves to the practice of anesthesiology in a university environment. Throughout his career, he brought a physician's sensitivity and sense of priorities, a scientist's discipline and analytic perspective, and an educator's understanding of the need for broadly based knowledge to a type of medical practice that had not even been considered respectable by most medical professionals when he first began his career in anesthesiology.

Lamont was born in Englewood, New Jersey, on February 25, 1905. As one of the three sons of Thomas W. Lamont, an internationally known banker and partner in the J. P. Morgan financial empire, his wealth and privilege were assured. Therefore, it was inevitable that young Austin would become an educated gentleman. Like his father and his older brothers before him, he graduated from the Phillips Exeter Academy and completed his undergraduate education at Harvard College, receiving his degree in 1927. Originally planning to study classic Latin and Greek at the New College, Oxford University, England, he changed his mind while still on the steamship headed for Europe. Instead, in what was to become his characteristic fashion, he decided to study science, simply because he felt he knew the least about this discipline, and he was always determined to meet and master new challenges. He began with basic biology, physics, and chemistry, and apparently found it much to his liking. However, neither was he a "grind," and as a student, he traveled widely in Europe, expressing surprise that so many of his British colleagues felt it necessary to study rather than to enjoy their vacation periods. Even at this early stage, his intellectual curiosity and wide-ranging interests were apparent: He applied an analytic dimension to his love of sailing and became involved in the application of low-speed aerodynamics to sail design.

Four years later, in 1931, Lamont emerged from Oxford with a new American wife, Nancy Lloyd, of Boston, Massachusetts, and a B.A. degree in physiology. Determined to pursue a career in medicine, however, again because he saw it as a challenge to be met, he returned to America and received his M.D. degree in 1934 from The Johns Hopkins University School of Medicine, in Baltimore. Despite the demands of medical school, he periodically reinvigorated himself with summers of sailboating and hiking in Maine at his mother's home on Penobscot Bay, and he stated that his life remained "both interesting and pleasant." His widening circle of family and friends began to develop and eventually included four children. Physically, he remained the image of the American aristocrat: proper and fastidious, "a lean nimble figure—good color—handsomely

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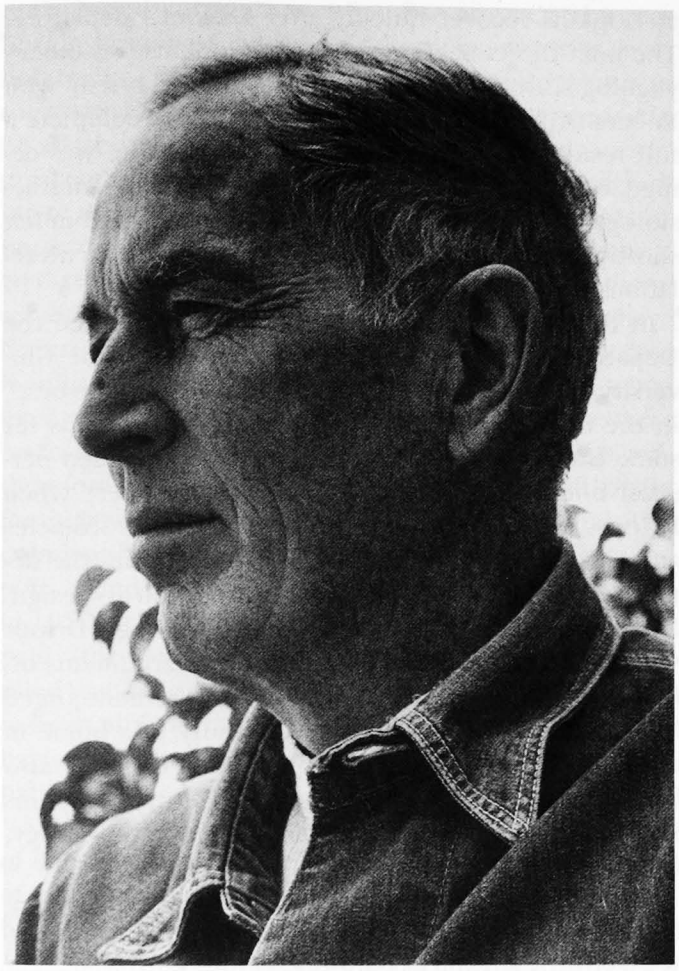

Austin Lamont in 1967. Courtesy, Dr. James Eckenhoff.

molded nose and mouth—clear blue eyes of penetrating depth, never evasive.''‡

Professionally, Lamont's abilities and energy were fully apparent. Over the next 4 yr, a series of surgical fellowship appointments, including the prestigious Halstead Fellowship in Surgery, permitted him to participate in research on the pathophysiology and treatment of tetanus, work that produced publications in *Annals of Surgery*[1,2] and the *Journal of Immunology*.[3] In 1941, Alfred Blalock, Professor of Surgery at Hopkins, asked Lamont, Instructor in Surgery, whether he would be interested in teaching the principles of anesthesia to surgical housestaff and developing a ''more professional'' level of anesthetic expertise within the Department of Surgery at Hopkins. At the time, surgeons at Hopkins and most other major teaching hospitals relied on the surgeon-directed services of nurse-anesthetists, with occasional anesthetics done by community-based physician anesthetists, none of whom typically had formal residency training in anesthesiology. Blalock had only gradually come to appreciate the skills of well trained nurse-anesthetists. By this time, he appeared to acknowledge that advances in cardiac and thoracic surgery could not continue without the support provided by a significantly higher level of medical understanding translated into anesthetic expertise.§

With characteristic curiosity, organization, and energy, Lamont set out to combine his formidable knowledge of physiology (he had subsequently received his master's degree from Oxford in 1935) with practical clinical experience. Over the next 18 months, he did a formal residency in anesthesiology with Ralph Waters at the University of Wisconsin, in Madison. He followed his residency with a brief fellowship with Emery Rovenstine in New York at Bellevue Hospital. As with so many other ''droplets,'' the nickname fondly self-applied by anesthesiologists who trained with Waters and who thereby counted themselves as direct professional descendants of the first residency program in the specialty, Lamont's concept of academic anesthesiology and the proper goals of a residency were profoundly influenced by Waters. Anesthetic record-keeping, case management conferences, breadth of medical knowledge, and the application of scientific method were relatively unknown to most practitioners of what was still largely a subsidiary technical discipline.

In the spring of 1943, World War II was in full storm as Lamont returned to Baltimore to face difficult challenges with high expectations; ultimately, he experienced severe disappointment despite some significant accomplishments. Blalock had established an impressive reputation in pediatric cardiac surgery, especially for corrective procedures for the ''blue babies'' with tetralogy of Fallot. Lamont and his junior colleague, Merel Harmel, who had just finished a surgical internship at Hopkins, personally anesthetized the first series of 50 desperately ill children to undergo this extremely innovative but difficult and dangerous procedure. They improvised equipment and techniques as needed, and their pioneering efforts may represent the earliest form of subspecialty cardiac anesthesia.[4] As the new Director of Anesthesia at Johns Hopkins, Lamont, now an Asso-

‡ Vandam LD: Personal remarks, Memorial Service for Austin Lamont. Philadelphia, June 25, 1969.

§ Longmire WP Jr: Alfred Blalock: His Life and Times. Privately published, 1991.

ciate in Surgery, was also busy planning a residency program in anesthesiology and a parallel course of instruction to upgrade the training of nurse-anesthetists at Hopkins. In the community, he organized the first local society of Baltimore anesthetists. He sent Harmel to Madison to formally train in anesthesiology, as he had done, in Waters' program.

The scientific basis for medicine, in general, and for anesthesia, in particular, obviously had become more complex. There was increased application of intravenous and regional anesthesia, growing experience with cyclopropane, and less dependence on the simple inhalation of diethyl ether. Most importantly, by late 1945, World War II was ending, and the decommissioning of military units meant a large supply of eager, young, war-trained physicians were returning to America. Their intense clinical experience in dealing with the complex pathophysiology of acute hemodynamic shock and the ultimate triumph of the Allied War effort gave many of them an exuberant self-confidence and enthusiasm that could be applied to the rapid postwar development of medical specialties, such as surgery and anesthesiology. This suggested to Lamont that the future of anesthesiology, both at Johns Hopkins and elsewhere, would be determined by full-time, academically trained physician-anesthesiologists, therefore necessarily implying a reciprocally decreasing role for nurse-anesthesia. But by now, however, Blalock no longer saw any need to change what had become his established routine. He preferred that anesthesia for his patients be delivered by technically proficient nurse-anesthetists under direct supervision of surgeons who themselves had been given only a general overview of anesthetic principles during their training.

Consequently, Blalock flatly rejected Lamont's detailed proposals to establish "professional" physician-delivered anesthesia and academic programs in anesthesiology at Hopkins. Unwilling to continue to serve indefinitely as a director of a department of technicians and perhaps impatient with his unchallenging administrative duties, the financially independent and highly principled Lamont simply resigned his faculty position at Hopkins in June 1946. In letters to his former research mentor, Warfield Firor, which were revealed decades later, Lamont conveyed his profound disappointment with this turn of events and his feelings that not only Blalock, but all the academic and institutional authorities at Hopkins, were responsible for allowing the status of anesthesiology at Hopkins to fall so far behind that common to other major medical institutions.§ Nor did Anesthesia at Hopkins recover quickly after Lamont's departure. The next Director of Anesthesia at Hopkins was otolaryngologist Donald Proctor. He had trained briefly with Robert Dripps in Philadelphia but did not complete a full residency in anesthesiology and therefore was denied certification by the American Board of Anesthesiology (ABA). He was not appointed until 1951 but left shortly thereafter following an acrimonious, difficult relationship with Blalock.

In the meantime, Lamont had long considered the Department of Anesthesia at the Hospital of the University of Pennsylvania as "one of the two or three best" in the country and had been friends with Dripps for some time. In fact, it was Lamont who provided persuasive encouragement several years earlier, when Dripps, despondent over his own political obstacles and frustratingly slow progress in developing the department at Penn, expressed his intention to resign. Fortunately for the specialty of anesthesiology, Dripps was dissuaded by the calm and rational arguments offered by Lamont. In the spring of 1947, Lamont joined him in Philadelphia, moving his family to a home in the elegant neighborhood of Chestnut Hill. He also brought with him Harmel and another former Hopkins surgeon "converted" by Lamont to anesthesiology, Leroy Vandam.

Lamont appeared to enjoy his new role as a key member of the nucleus of a developing academic center. With Dripps willing to fight the endless battles needed to establish and develop their new department, Lamont was free to teach the essentials of anesthesia to medical students and housestaff, a responsibility he described in his typically spare, efficient style of speaking as "an interesting task." The Department at Penn was originally composed of nurse-anesthetists under the supervision of Ivan Taylor, one of the two diplomates of the ABA then practicing in Philadelphia. Later, under Dripps' leadership and, apparently, with the urging of Lamont, it soon was composed entirely of physician-anesthesiologists. Dripps' expertise in pharmacology and Lamont's mastery of physiology were ideal for construction of the scientific foundation for a new medical specialty based on applied cardiovascular and neurophysiologic pharmacology. The Department flourished, receiving one of the first four National Institutes of Health training grants in Anesthesia, perhaps in no small part because of Lamont's uniquely complementary relationship with Dripps.

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difficult and uncertain, not because of external forces but, in large part, because of frictions, rivalries, economics, and differences among anesthesiologists as to the relative importance of the priorities that needed to be addressed by the specialty. Rapid advances in surgical technique required an equally aggressive upgrading of the clinical expertise and technical skills incorporated into the anesthetic itself. Therefore, young, well trained, confident anesthesiologists found themselves in great demand, and many appeared to have begun to use this situation to redress the perceived inequities of reimbursement in the prewar era, when most physician-anesthetists fulfilled functions that were essentially the same as those of nurse-anesthetists and, therefore, unlike other physicians, were generally paid for their services by the surgeon or by the hospital. The culmination of this trend occurred when the Hess Report, issued by the American Medical Association (AMA) in 1950, stated explicitly that all physicians should be paid "fee-for-service" directly, and, in addition, implied that salaried physicians were allowing themselves to be exploited or, worse, were guilty of unethical behavior by failing to establish an appropriate physician-patient relationship.[5]

At this time, the leadership of the American Society of Anesthesiologists (ASA) and the ABA was composed of practice-oriented anesthesiologists who appear to have been quick to use this public statement of the AMA as political leverage to accelerate the transition of the specialty to a full fee-for-service mode and thereby place it on equal reimbursement footing with the surgical specialties. For academic anesthesiologists, such as Lamont, however, only a salary-based arrangement permitted sufficient freedom from the demands of the surgical schedule to permit research and teaching in a university environment. Nevertheless, from 1950 until 1953, ASA and AMA memberships, which implied compliance with the principle of fee-for-service reimbursement, were stated to be specific mandatory requirements for ABA certification eligibility.[5] Understandably, anesthesiologists in the universities were distraught and even enraged. Many academic anesthesiologists believed that, while they had committed themselves, often despite considerable financial sacrifice, to defining the scientific and educational basis of their specialty, their practitioner colleagues were simply exercising their political dominance of the specialty for personal financial gain and would deny them a voice in the future of the specialty.

In this acrimonious and emotional environment, Austin Lamont may have made his greatest contribution to American academic anesthesiology. Amidst a contest of priorities and principles, clashes of strong personalities, opinions, and personal prejudices, Lamont quickly became a mediator and sounding board for the process that eventually led to the formation, acceptance, and success of the Association of University Anaesthetists, only recently renamed the Association of University Anesthesiologists (AUA). His involvement appears to have been largely serendipitous, yet his qualities of thoughtful insight, objectivity, integrity, and discretion made him uniquely suited for the role. Lamont donated his copies of the voluminous correspondence dealing with these issues to the archives of the Wood Library Museum in 1957, noting, "I believe the individuals concerned . . . would write or tell me things they would not say to each other. There are, therefore, in this folder personal letters not intended for public view." Characteristically, however, he suggested that, after a suitable time had elapsed for the "sting" of many candid "personal references" to dissipate, it would be of value for the AUA and the specialty to make these items public.[6]

The origins of the AUA, described in detail elsewhere,[5] are in a letter written to Lamont in 1950 by Henry K. Beecher, Anaesthetist-in-Chief at the Massachusetts General Hospital, who decried the collective attitude of the political power structure of the anesthesiology "establishment" toward their academic colleagues, later characterizing the ASA leadership as a "tight little fascist dictatorship." Beecher suggested that Lamont lead the formation of a new organization to represent the neglected special interests and concerns of academic anesthesiologists. For the next 2.5 yr, there was frequent and intense four-way correspondence among a self-styled "gang of four," which included Lamont, Beecher, Manny Papper of Columbia University, and Dripps. By March 1952, Lamont had written and distributed an 11-point proposal describing the scope, purpose, and suggested membership of the AUA. The proposal was put aside for almost a year, however, as Beecher and Dripps tried repeatedly, without success, to establish a dialogue of reconciliation with the leadership of the ASA and ABA to avoid the need to establish a separate organization.

In May 1953, the AUA, the first national professional society specifically composed of academic anesthesiologists, had its initial organizational meeting in Philadelphia. Lamont, secretary *pro tem,* had convinc-

ingly argued the need to expand the number of AUA founding members from the original group of four to eight before this meeting, and, in keeping with his characteristic sense of personal involvement in these matters, graciously invited all of them to stay at his home, rather than at a hotel, during this important event. He appears also to have been instrumental in dissuading Dripps and other colleagues from exercising their personal prejudices too vigorously when compiling the membership list for what was then a closed, "by invitation only" organization. Consequently, despite the reservations of some that it would serve merely as a private club for the academicians of the "Eastern Seaboard," the AUA came to represent the entire community of academic anesthesiologists. Within a few years, as the political and economic tensions that led to its formation eased, AUA members became inextricably and productively involved in both the governance and the scientific, educational, and political functions of the ASA and the ABA.

Lamont was divorced from his first wife and then remarried in 1957. He became progressively more involved in social, cultural, economic, and political matters, trying, as he had in Baltimore, to organize a local anesthesia society in Philadelphia. Nevertheless, Lamont was not entirely happy, repeatedly frustrated and discouraged by the attitudes of surgeons, hospital administrators, and insurance companies toward anesthesiologists, in particular their refusal to simply accept them as "real doctors," just like other physicians. He was also sensitive enough to acknowledge that these experiences helped him to perceive, for the first time in his life, what it was like to be a member of a minority group subject to discrimination. In fact, he provided the Scholarship Fund for Negro Students, as it was then called, at Johns Hopkins, with a substantial financial endowment.

For 20 yr, Lamont's quiet wisdom, sense of fairness and ethics, and his ability to deal with sensitive issues and personal problems counterbalanced the charismatic leadership of Dripps. "He would affect a gruff manner as if to conceal his innate sentimentality. . . .His way of saying that he was interested and would help if he could [was to] accost one with a gibe. . .in the operating room [and to ask,] 'Do you know what you are doing?' "‡ Lamont was precise in thought and speech and direct, often to the dismay of those who displeased him. His academic *curriculum vitae* is remarkable, however, for its brevity. Of the 300 publications in the Penn departmental bibliography from 1946 through 1965, only two bear his name. He published a few papers on the actions of local anesthetics[7,8] at about the time he came to Penn, but even by 1964, he acknowledged less than ten publications in peer-reviewed journals. All are clearly of high quality, but only one came directly from his experiences at Penn with Dripps and James Eckenhoff.[9] Nor are there textbooks or chapters to his credit. Rarely photographed, he shunned titles, awards, authorship, and notoriety, preferring perhaps to suggest and advise rather than to publish, manage, or administer.

By all accounts, Lamont was known to be generous, patient, and thoughtful, with a deep and warm sense of humor. Dripps acknowledged that "his kind, often shy giving of himself was done without display and went out to many." Eckenhoff, the first and only Harrison Fellow in Anesthesia at Penn, struggled to meet the financial needs of his young family when he arrived because a slow-moving university administration did not have his stipend ready. He received quick remedy from Lamont's personal checkbook.# Another junior member of the Department, visibly upset and unsure of where to turn for help with a financial decision, was told by Lamont to return immediately to the operating room and continue caring for his patients. Within a few hours, Lamont had discussed the matter with his attorneys and gave the troubled resident a simple instruction: "Buy it."**

Austin Lamont died on June 21, 1969, at the age of 64, after suffering a series of malignancies. At the memorial services that followed in Philadelphia, Chicago, and Vinalhaven, Maine, his colleagues, friends, and students testified to his role in their lives, both personal and professional. Lamont had been concerned with the conservation of nature and the preservation of wildlife, especially birds, generations before it became popular or fashionable, and he deeded many of his properties in Maine and New York to the Nature Conservancy. He even willed his body for use in anatomic instruction in the medical school. Eckenhoff described him as a scholar, a man of principle, courage, and sage advice, but above all, as "a friend who represented a group of talents that we all cherish. . . .So rare was the combination that I fear the pattern may have been destroyed with Austin's death." His widow, Bodine, said simply that "he was a person that people did not forget."

Eckenhoff J: Personal communication. 1993.

** Prevoznik SJ: Personal communication. 1994.

All who knew Austin Lamont apparently responded similarly to these human qualities, yet only a few of his colleagues in anesthesiology also understood the importance of his role in the academic development of their specialty.[10] Lamont's modesty limited his contemporary professional recognition to his immediate friends, colleagues, and trainees. Nevertheless, shortly after Lamont's death, Dripps announced the creation of the Austin Lamont Fellowship in Clinical Anesthesia, and within a few months, contributions arrived from 145 donors. In 1988, the Hospital of the University of Pennsylvania moved its Operating Suite to the new Founders' Pavilion. At the suggestion of Steffen Oech, a former friend and colleague of Lamont who had returned to the Penn faculty for his last few years of practice, the group of anesthesiologists subspecializing in Plastic and General Surgery renamed itself the Austin Lamont Anesthesia Block. A bronze plaque with Lamont's likeness has been permanently installed in the northwest corner of the facility. More recently, the Lamont family has made it possible for the Department of Anesthesia at the Hospital of the University of Pennsylvania to establish the Austin Lamont Professorship in Anesthesia with an endowment to perpetuate his unique contributions to the development of American academic anesthesiology.

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