

Vilray Papin Blair's Early Concepts of the Cleft Palate Problem

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Vilray Papin Blair stands prominently within the "Hall of Fame" enshrining those who have devoted their special interests and skills to the field of Plastic and Reconstructive Surgery. The distinguished American surgeon and scholar, Jerome Webster, wrote (17):

Blair's place is assured as having done more than anyone in this country to advance the art and practice of Plastic Surgery, to have it recognized as a distinct specialty, and to formulate means of educating on-coming generations of Plastic Surgeons in the principles and techniques of reconstructive surgery that mean so much for the function, appearance and happiness of innumerable individuals.

Vilray Blair was born June 15, 1871, in St. Louis, Missouri. The delightful book, *Catfish and Crystal*, provides us with a living panorama of this great Midwestern metropolis which was to be Blair's lifelong home.

In its rather quiet way, this fascinating city has stamped a considerable portion of the United States as 'Made in St. Louis.' It was the gateway for the adventurers, explorers, traders, missionaries, soldiers and settlers of the trans-Mississippi West. It was their source of supplies, their link with the East. . . . Indeed, because it dominates the world's greatest river highway, St. Louis was once proposed as the substitute for Washington, D. C., as the capital of the nation.

St. Louis after the Civil War still was a boom town. Its banks were paying in specie, and that could be said in only one other city in the whole country. The outbreak of war had checked the city's prosperity only momentarily. . . . In 1860 St. Louis had been a city of 160,000. By 1900 it had a population of 600,000.¹

Vilray Blair was a descendant of one of the early French settlers who had come up the river from New Orleans. His grandfather, Timothy Papin, was a skilled gynecologist in St. Louis.

This ancestry, and the wishes of the family, made a medical career al-

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most mandatory for young Vilray. He attended and graduated from Christian Brothers College. He wrote (17):

At the time I was in school it was largely surrounded by country. . . . I rode horseback out and in from Grand Avenue — to do this was one of the main reasons I was sent out there to school — and on bad snowy days John De Moss and I would walk from the college to his home. . . . We usually were able to shoot a few birds on the way home.

After receiving his degree in the arts, Vilray enrolled in 1890 in the St. Louis Medical College, his grandfather's alma mater. The curriculum extended over a three-year period. The course consisted largely of formal lectures. *Gray's Anatomy* was said to have been his only medical textbook. Dr. Elisha Hall Gregory, the Professor of Surgery, was his most stimulating teacher.

At the end of the first year Blair was restless and left school to string telephone wire in the Rocky Mountains. The world's first high tension line was built in the Telluride region to carry power to gold mines; Blair helped with this project.

Upon the insistence of his family, he returned after a year to medical school and rejoined his former class. The St. Louis Medical College held its 51st Annual Commencement on Thursday, March 9, 1893. Vilray Papin Blair's name is among the graduates on that day. The young doctor had received full credit for the year spent in stringing wire. He then served as a part-time intern for two years in the old Mullanphy Hospital.

In 1894 Dr. Blair was appointed Instructor in Anatomy at Washington University. Dr. Webster writes (17):

This experience in anatomy gave him the valuable foundation for the creative surgery that he later performed when he was called upon to do all types of 'head-ache problems' in his surgical work.

Blair was, for a time, a surgical assistant to Dr. Paul Tupper. During this period he took advantage of every opportunity to familiarize himself with the operative procedure for unusual cases.

After medical school and six years of training, Blair still felt that he was not yet prepared as a surgeon, and took off to rest and to see the world as a ship's doctor. He later wrote (1, 15):

While different ships were being loaded I got on shore in a number of European ports. I traveled 1,000 miles on the Amazon and Negro Rivers. I returned to Liverpool with beriberi, yellow fever, small pox and malaria on the ship, after at least one over-the-side funeral every other day between Para and Madeira. The ship was then put in service to West Africa carrying troops from the Ashanti War in which I served, for a time, as acting troop surgeon. My discharge at Madeira marked the end of this interesting set of experiences.

At the age of thirty he returned to St. Louis and in 1901 embarked upon a long and distinguished surgical career. His first paper, "Two practical wrinkles in through-and-through drainage" (16), was published in 1897

with Paul Tupper. His last paper, entitled "The role of the switched lower lip flap in upper lip restorations" (14), appeared in 1950; it was the privilege of the senior author to participate in the preparation of that paper. In the intervening years, Blair was author or co-author of almost 200 scientific articles, four books, and eight chapters in books (17).

In 1909 he published his first paper devoted exclusively to the problems concerning The American Cleft Palate Association. Other papers on the cleft palate followed in quick succession (2, 3, 4, 5, 6, 8, 9, 10, 11). The classic book, *Surgery and Diseases of the Mouth and Jaws* (7), was initially printed in 1912.

The First World War interrupted his work in St. Louis. Blair was selected by Surgeon General Gorgas, at the suggestion of Dr. Will Mayo, to head the Section of Oral and Plastic Surgery in the U. S. Army in this country, and to serve as Chief Consultant in Maxillofacial Surgery with the American Expeditionary Forces. He was on duty both in Washington, D. C., and in the European Theater. It was at this time that Dr. Blair, in collaboration with Dr. Robert Ivy, compiled the book entitled *Essentials of Oral Surgery* (12). The first edition is dated 1923. After the war Blair again returned to St. Louis.

A review of Dr. Blair's early writings on the cleft palate problem gives us a better picture of Blair the surgeon and a broader concept of American cleft palate surgery. His experience provides a note of caution for those who are tempted to adopt readily new surgical-orthodontic procedures.

Two long decades of clinical work, many observations, a wealth of experience, and his share of surgical disappointments led Vilray Blair to these conclusions in 1923 (13):

Even the simple approximation of the alveolar process with a wire or suture through the bone, or the more radical plan of cutting or fracturing the process and replacing the premaxilla are followed by mal-relation of the incisor arches with flattening of the lip and increased difficulty of closing the anterior part of the palate cleft. Wiring of the maxillae is sometimes followed by most distressing distortion and lack of development of the upper jaw. These changes are rarely very evident in early childhood, but when seen at the age of 12 or 15 years may cause the operator almost to regret that this particular child was not one of those infants the angels had chosen for their own.

Cutting of the septum followed by overzealous replacement of the protruding premaxilla in the complete double cleft is frequently followed by results only less distressing than the catastrophe that can follow the wiring of the maxillae.

The practice of simply repairing the lip over the open alveolar cleft is again becoming increasingly popular. The earlier this is done the better. In from three to 15 months following this operation the borders of the alveolar cleft will usually have come in contact, giving a better ultimate occlusion than can be produced by direct suture of the bones themselves.

Summary

Vilray Papin Blair's professional career spanned more than fifty years. He was one of the world's foremost plastic surgeons, a pioneer in his spe-

cialty, the author or co-author of over two hundred scientific works, and a dedicated teacher of the principles, art, and technique of reconstructive surgery.

In the recent literature concerned with the surgical management of a cleft lip or palate patient, new methods are detailed which give real promise, but only long-term follow-up studies can assess their value. Justifiably, some papers present an evaluation of older and more standardized techniques. Strikingly, other articles, on the basis of recent experience, advocate principles of repair which represent methods long ago advanced and subsequently discarded after careful observation and critical analysis of the final results.

This paper concerns itself only with Vilray Blair's early writings on the cleft palate problem. They have proven well worthy of review and provide a basis for the formulation of sound principles of repair of the lip and palate. They offer a note of caution for the younger man who may readily adopt wholeheartedly and without question new and untried methods. They serve to warn those tempted to revert to techniques long ago discarded. At the same time they serve as a great source of encouragement for those experimentally minded.

Shakespeare wrote "Whereof what's past is prologue; what to come, is yours and my discharge."

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