Lincoln Medical History May Help Patients Today

Nearly 100 years after his death, Abraham Lincoln is making an unexpected contribution to society. He is helping medical science learn more about an inherited condition known as the Marfan syndrome, which Lincoln is believed to have had.

Making a full study of our tallest president and his relation to the set of symptoms characterized by a tall, lanky build, eye involvement and in severe cases heart trouble, is the spare-time activity of a University of Southern California physician, Dr. Harold Schwartz, of Huntington Park.

While other Lincoln buffs collect such Lincolniana as books and photographs, Dr. Schwartz collects Lincoln's relations. "Kin of Lincoln can be found all over America," he says. When he finds them, he puts them in place on Lincoln's medical family tree.

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IN WORK published in the Journal of the American Medical Association and since expanded, Dr. Schwartz, in instructor in medicine at the USC School of Medicine, presents extensive evidence that our 16th President had the Marfan syndrome.

He has traced the Marfan gene back through Lincoln's paternal line to the first generation of Lincolns in this country, around 1630, just 10 years after the Pilgrims landed.

The findings have been found useful by both historians and medical authorities. Several historical publications have requested permission to reproduce the Lincoln medical geneological chart which Dr. Schwartz has developed. And the British Medical Journal commented, "... the investigation ... throws fresh light on a condition about which little is known, and we await further developments with interest."

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THE RESEARCH has a further value to medical science. Since humans reproduce at a considerably slower rate than fruit flies, or guinea pigs, carefully-documented studies following genetic traits through a dozen or more generations are rare. When available, they add considerably to our knowledge. Today, more and more attention is being paid to genetic abnormalities, and genetics has also come to the forefront with basic findings on DNA and RNA. Thus, Lincoln and his kin may help answer questions not only about the Marfan syndrome, but about the behavior of genes.

Six years ago, before he began his Lincoln study, Dr. Schwartz was not especially concerned with either the history or the Marfan syndrome — even though he had studied at the University of Illinois in Champaign-Urbana, prime Lincoln country. After receiving his M.D. from Illinois in 1950, the former New Yorker took his internship at Los Angeles County General Hospital, where he diagnosed his first case of the Marfan syndrome. But his interest as he entered practice centered on heart and lung disorders.

In his spare time, Dr. Schwartz like to read biography, and he had just completed Carl Sandburg's great work on Lincoln in 1959 when a seven-year-old boy was brought to his office. He diagnosed the boy as having the Marfan syndrome.

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A FEW MONTHS later, Dr. Schwartz learned that one of the boy's close relatives had the same surname as the President and immediately wondered if Lincoln could have had the same condition as the boy. He followed his hunch and determined that the boy was a distant relative of the President.

The USC physician's life hasn't been the same since.

In search of historical material, he has traveled from coast to coast. As he became increasingly serious about his investigations, he had to background himself in history, genetics and geneology — an enormous task. Lincoln literature is second in volume only to the writings on Jesus Christ, and the field is crowded with authorities who are quick to point out any unsubstantiated claims about their hero.

Dr. Schwartz had to be even more vigilant about the medical aspects of his work, since the Marfan syndrome is a difficult condition to diagnose. As a result of his report, the syndrome is now being recognized more frequently.

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IT WAS FIRST described in 1896 by a French physician, A. B. Marfan. It is believed to be caused by a dominant gene, which means that the condition can appear in a child if one parent carries the gene, whereas a recessive gene cannot affect a child unless both parents carry it.

Individuals with the Marfan syndrome generally have long extremities, narrow shoulders, thin or sunken chests, loose joints, little fat beneath the skin, long facial features resulting in a high-arched palate, and protruding ears. While they may be strong and agile (as was the rail-splitter, Abe Lincoln), they are prone to dislocations and hernias.

Normal persons have an arm span approximately equal to their height, and the distance from the pubic bone to the soles of the feet and the top of the head is also approximately equal.

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IN THE ADULT Marfan the arm span is typically three inches greater than the height, the lower part of the body is longer than the upper part, and there are other skeletal asymmetries. The hands, and particularly the long, spidery, and often "double - jointed" fingers, provide other indices. The Marfan syndrome generally includes some eye involvement. In very severe cases, patients may have weakness in the main artery leading from the heart or associated heart disfunction.

Dr. Schwartz has shown that Lincoln had many Marfan traits, including overly long arms and legs, leanness, typical facial and hand characteristics, and eye difficulties. Very recently he has established that Lincoln's arm span was from three to six inches greater than his height. Many of the President's paternal ancestors as well as his descendants and individuals in other lines descended from a common ancestor show similar traits.

Three of Lincoln's four sons resembled their father, and all three died at early ages of what may have been heart disfunction. One of the boys had a cleft palate. Lincoln's eldest son, Robert, who did not resemble the President, had eye trouble, and Robert's son, Abraham, who favored his grandfather, died at 17, also of possible heart disfunction.

CURRENTLY Dr. Schwartz is trying to determine whether the Marfan gene came from Samuel Lincoln, who arrived in America in 1637 and was the founder of the President's line in this country, or from his wife, Martha, whose maiden name may have been Lyford or Lewis. His present investigation into the lineage of Samuel's cousins may provide the answer.

He is also studying a branch of Lincolns who came from Norwich, England, considerably after Samuel Lincoln. In addition, he is trying to learn more about personality traits which may be associated with the Marfan syndrome. "Many case reports suggest superior intelligence and other special talents," he says.

"The heredity of the world's great men has long been a source of fascination," observes Dr. Schwartz, "although it can never fully explain their achievements. Being abnormally tall, skinny, and jug-eared might have influenced a sensitive, intelligent backwoods youth to try harder and achieve more than other boys. It might also have contributed to the deep compassion and understanding of other people for which Lincoln is so well known."

As a result of his research, Dr. Schwartz believes that the Marfan syndrome may be more common that was originally thought.