

## Andreas Roland Grüntzig: A Free-Spirited Genius

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Andreas Roland Grüntzig and his wife, Margaret Ann Thornton Grüntzig, died in a plane crash in Monroe County, Ga., USA, on October 27, 1985. They were flying to Atlanta from their home on Sea Island, Ga. (one of the coastal islands off the coast of Georgia). The weather was bad. A.R. Grüntzig was returning to meet a cardiology fellow at Emory University Hospital where he planned to check on a patient about whom he was concerned. This account of his last day tells us two things about Andreas. First of all, the account underscores his disregard for his personal safety. I, and many others, had pleaded with him not to pilot his own plane, but he had no fear. Secondly, the account highlights his great concern for the welfare of his patients.

The rumor surfaced during the early morning of October 28, 1985. There was a plane down. Could it be the Grüntzigs' plane? The feelings of his Emory colleagues cannot be expressed in words. It was a feeling of helplessness and despair with diminishing hope. A few hours later it was definite. I called his brother in Düsseldorf, and he traveled to Heidelberg to inform his mother. The telephone rang, and messages arrived from people all over the world. This 46-year-old genius and his 27-year-old physician wife were known throughout the medical community which, for them, extended from Hong Kong to Switzerland and from Canada to Argentina. Within hours after the crash the nauseating news was heard round the world, and the feeling of helplessness and despair paralyzed the people who knew them.

His mother, his brother, and many American and international friends were at the funeral in Macon, Ga., on November 1, 1985. His mother brought a plastic bag with her. It was filled with German soil. At the graveside she sprinkled the soil on both of their caskets. His brother and the Thorntons did likewise. His beautiful mother said softly: 'auf Wiedersehen – auf Wiedersehen'.

The Emory University had a campus-wide Memorial Service on November 3, 1985, and another Memorial Service was arranged by the President of the American Heart Association at its annual meeting in Washington, D.C., on November 12, 1985.

What did he do? Andreas Grüntzig invented the miniaturized balloon-tipped catheter and developed the technique of percutaneous transluminal coronary angioplasty. He always gave Forssman, Sones, and Dotter, along with many others, credit for the platform on which he stood. He, above all, understood the 'standing on the shoulders of giants' concept which was popularized but not uttered first by Merton [1].

He performed the first coronary dilatation in a patient on September 16, 1977 [The interested reader is referred to ref. 3 for Grüntzig's account of the first coronary angioplasty in man]. This followed several years of work on animals and on the more peripheral arteries of man. He reported his results in several patients in *Lancet* in 1978 [2]. From that point on, he and his work were watched in crescendo fashion by interested scientists everywhere. There were clues that he might move to America. I invited him for a visit to

Emory University in Atlanta in 1980. He stated his needs clearly. He was a tough but kind negotiator. We met his needs, and he moved into one half of my office suite at Emory University Hospital in September 1980. During the 5 years he was with us, he and his associates in the laboratory performed more than 4,000 coronary angioplasties.

What was he like? Physically, he was tall and lean. His eyes were dark, and his eyelashes were long. He sported a distinctive mustache. He moved with perfect coordination. His personality was multifaceted. He was kind but tough when he needed to be tough, thoughtful of others, persistent, confident but not arrogant, elegant, charismatic, fearless, daring with his own life but protective of his patients' lives, highly skilled in the laboratory, creative and brilliant. Because he 'saw' things that others did not see he would be classified as a genius.

There are several reasons why he was successful. He *invented the small balloon catheter* used to dilate obstructed coronary arteries. He was the first to work inside the coronary arteries: prior to him, no one dared to do that. The following point must be emphasized. His lack of concern for his personal safety stopped there for he was greatly concerned about the safety of his patients. Although *he was daring, his kindness and concern for others permitted him to utilize the technique with safety on his patients*. Had he been daring without concern for his patients, the technique might have been misapplied and perhaps discontinued. Finally, the popularity of the procedure grew because he taught cardiac fellows at Emory and presented 14 courses, 4 in Zürich and 10 at Emory University, to a large number of cardiologists who were already skilled in cardiac catheterization. These courses, often attended by 400–500 people, displayed the *great teaching ability* of Andreas Grüntzig. He and Drs. King, Douglas, Myler, and Spitzer performed coronary angioplasty in one of the Emory University Hospital cardiac laboratories and transmitted the action by television to a large screen a block away where the large audience was seated. Finally, his *honesty and integrity* were so uniformly recognized by the medical

community that the technique was accepted much more readily than had the reverse been the case.

He called research – 'new directions'. He was constantly refining his technique, developing new catheters and making notes on 'new directions'. He insisted that the cardiology fellows who trained with him have at least 3 years of cardiology training and work with him 1 or 2 years. He was not interested in training physicians to be technicians, but wanted to train individuals who would push the field ahead as he did – slowly and gently, with the patient's safety in mind.

He cannot be replaced. This is the reality of the sad event. His work can and will continue. In order to insure the continuation of his work, which was destined to be in areas other than angioplasty, the Board of Trustees of Emory University has established the Andreas Grüntzig Cardiovascular Center at Emory University Hospital in Atlanta. The Center will emphasize research in the broad field of cardiovascular disease, and international scholars will convene to discuss approaches to unresolved problems. The Andreas Grüntzig Memorial Fund will be utilized to support the Center. We have discovered three chapters and the table of contents of a book he was writing on angioplasty. I will shepherd the book to completion in order to share his last views with a wider audience. We will organize the Andreas Grüntzig Angioplasty Society, and the angioplasty courses he organized will continue. So, his work will live on, although we will miss the excitement generated by his unique free spirit.

Auf Wiedersehen Andreas and Margaret Ann.

## References

- 1 Merton, R.K.: On the shoulders of giants (Harcourt, Brace & Jovanovich, San Diego 1985).
- 2 Grüntzig, A.R.: Transluminal dilatation of coronary artery stenoses (Letter to the Editor). *Lancet* *i*: 263 (1978).
- 3 Hurst, J.W.: History of cardiac catheterization; in King, Douglas. Coronary arteriography and angioplasty, pp. 6–8 (McGraw-Hill, New York 1985).