

SPIR Ask Annie - SEP 2017

Written by Dr. Anne Gill, Children's Healthcare of Atlanta, Emory University Hospital

What did Dr. Cope contribute to Interventional Radiology?

"I am, of course, a gadgeteer" – Constantin "Stan" Cope, Interventional News 2004

Dr. Cope is a formidable founder of interventional radiology. His work, contributions, and theories live on in those he has trained and the devices he engineered. After escaping Paris before the Hitler regime took control, his family immigrated to London where he spent his early years in school. He began his medical training at Middlesex Medical School and completed it after World War II at New York Medical College.

He was trained as an internist but focused his early medical career on interventional radiology. As an assistant professor at Albert Einstein Medical Center in Philadelphia in the 1960s, he joined the core group of physicians that began the first Angio Club in the country. This group went on to become the founding members of the Society of Cardiovascular and Interventional Radiology, which was renamed the Society of Interventional Radiology in 2002. Cope was the only non-radiologist physician in the early group. He quickly saw needs within angiography for products that would make the procedures easier to perform and easier for the patients to tolerate. Because the tools he envisioned were not readily available, he designed and manufactured them himself with equipment from local hardware stores and the Army/Navy supply.

In the early 1970's, he established a close working relationship with William Cook, who was just beginning to design and manufacture guidewires, needles, and catheters. One of his most well-known and earliest designs was the Cope loop to stabilize nephrostomy tubes and biliary catheters within the respective collecting systems. His idea was to have the tip of the catheter tied to a retention suture, allowing for creation of a loop, thereby preventing the tube's dislodgement. Dr. Cope brought the invention to his colleagues who immediately accepted it and tried to manufacture it themselves. Eventually, the Cook Company learned of this invention, and the locking catheter tip has been in high demand ever since.

His techniques of transhepatic biliary access, micropuncture vascular catheterization, percutaneous access for anchoring hollow abdominal viscera, and thoracic duct embolization

have revolutionized the way interventional radiology is practiced. Dr. Cope has had a particularly significant impact in pediatric interventional radiology since he was the first person to successfully access and intervene on the lymphatic system. In the early days of the lymphatic procedures, it might take Dr. Cope up to eight hours to successfully catheterize the thoracic duct. Now, after slight technical modifications and better imaging equipment, the procedure can take less than an hour and provide relief to patients plagued by chylous effusions and plastic bronchitis. Dr. Cope truly was a pioneer in the field of interventional radiology, innovating tools, techniques, and philosophies.

References:

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