This presentation will review some of the historic developments in brachytherapy treatment. The early history of brachytherapy is primarily the history of radium and its daughter products, particularly $^{222}\text{Rn}$. Much of this history is interwoven with the histories of institutions in North America and Europe, such as the Memorial Hospital, Harvard Medical School, the Huntington Memorial Hospital, closed in 1941, with its activities transferred to the Massachusetts General Hospital, M.D. Anderson Hospital, the Mayo Clinic, the Radium Institute of Paris, the Radium Hemmet in Stockholm and the Holt Radium Institute in Manchester. Noted personalities such as William Duane, Gioacchino Failla, Robert Abbe, Henry Janeway, Victor Hess and Enrico Fermi all worked with “radium cows” which supplied radon gas in seeds and tubes for treatment. Edith Quimby and Herbert Parker made significant advances in dosimetry, developing systems for planar implants and more complex geometries. Noted physicians such as Gilbert Fletcher, Ulrich Henschke, Luis Delclos and Nisar Syed developed applicators and procedures for using radioactive sources for treatment. Modern brachytherapy techniques were developed in the 1960’s with the search for radium-substitute materials including $^{125}\text{I}$ and $^{192}\text{Ir}$. This time period also saw the development of remote afterloading by Henschke and his associates and the adaptation of computer technology which facilitated the development of more accurate, user friendly techniques of dosimetry. In the modern era, remote afterloading in conjunction with high dose rate radioactive sources (HDR) and the use of $^{125}\text{I}$ and $^{103}\text{Pd}$ seeds have become staples of modern treatment.

"Introduction" - Lawrence N. Rothenberg, Ph.D.

"Brachytherapy, the first 100 years" - Basil S. Hilaris, M.D.

"Radium, Radon and the search for Radium Substitutes" - Jean M. St.Germain. M.S.