Mayo Clinic
W. Bruce Fye History of Medicine Library
Presents
Evolution And Knowledge of Cancer:
The Early Years

Two views of Clara Jacobi, a Dutch woman who had a tumor removed from her neck in 1689.

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Bibliography:
http://training.seer.cancer.gov/disease/history/
American Journal of Cancer vol. 18, 1933. Haagensen, Cushman. An exhibit of important books, papers and memorabilia illustrating the evolution of the knowledge of cancer.
https://commons.wikimedia.org/wiki/File:Clara_Jacobi-Tumor.jpg
Evolution And Knowledge Of Cancer: The Early Years

Human beings and other animals have had cancer throughout recorded history. Some of the earliest evidence of cancer is found among fossilized bone tumors, human mummies in ancient Egypt, and ancient manuscripts. Growths suggestive of the bone cancer called osteosarcoma have been seen in mummies. Bony skull destruction as seen in cancer of the head and neck has also been found.

The earliest record of neoplastic disease is found in the Edwin Smith Papyrus, part of an ancient Egyptian textbook on trauma surgery. One section of the papyrus does discuss diagnosis and symptoms, and tumors in general are referred to, but there is no clear reference to cancer.

When Hippocrates used the adjective occult in his famous aphorism, “Cancros occultos omnes melius est non curare. Curati enim citò pereunt. Non curati vero, longius tempus perdurant,” he referred to non-ulcerating and deep-seated cancer which he chose not to treat. He only recommended cautery and caustic pastes which may have cured superficial skin cancers.

All the earlier Arab and Muslim scholars realized that a cure is most likely if the cancer was identified at its earliest state. The first goal of a treatment strategy should be to halt the growth. Surgical removal was suggested if the tumor was small and accessible and not close to major organs. Ibn Sina, known in the west as Avicenna, described one of the earliest treatments in his Canon, “the excision should be radical and that all diseased tissue should be removed, which included the use of amputation or the removal of veins running in the direction of the tumor … so that nothing of these will be left”.

The Renaissance marked advances in anatomy and wound surgery and scientists developed a greater understanding of the human body. But until the humoral system of pathology was discarded and classification of tumors begun by means of autopsy, improvement in diagnosis and treatment of cancer was lacking.

During the years 1761-1838 Giovanni Morgagni began performing autopsies in order to relate illness to pathologic findings after death. Progress was made in the description and classification of cancer which laid the foundation for scientific oncology. This period also marked the beginning of cancer hospitals.

Joseph Lister made surgery relatively safe and men like Billroth and Volkmann seized upon the idea of radical surgery to treat cancer and were quick to carry out resection which had previously been impossible. Improved knowledge of the anatomy of regional lymphatics made it possible to plan dissections intended to remove not only the primary tumor but all adjacent tissue that might contain metastases.

However, cancer was still a feared and dreaded disease and considered incurable. It wasn't until the 20th century that radical surgery became more commonly used.

This exhibit ends with the discovery of roentgen rays and radium in the late 1800's by Wilhelm Röntgen and Pierre and Marie Curie respectively, both of which were used in the treatment of cancer. It is arranged in an approximate chronological order. All items are from the collection of the W. Bruce Fye History of Medicine Library.