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Mastavaya A. V. CANCER IN THE ANCIENT TIMES

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Oncology is in the top ten causes of death in the world now. It is about 10 million deaths per year, particularly from lung and stomach cancer. Knowing the aetiology of the diseases helps scientists understand better a disease and find new methods of its treatment. Various investigations showed that even dinosaurs, namely Hadrosaurs, representatives of the duck-billed dinosaur family, had had such ailment as malignant neoplasms. A foot bone of Hominid affected by osteosarcoma is the oldest known case of human cancer. A Neolithic skeleton with signs of multiple myeloma found in Austria is considered to be the earliest generally accepted example of a malignant neoplasm.

There are some other cases from the ancient times. In a tomb in Sudan, archaeologists have uncovered the earliest complete skeleton of a human who suffered from metastatic cancer. Mummies in Peru revealed the case of a woman in her 30s with a malignant tumour in her arm. Studying the bodies of ancient Egyptians archaeologists have discovered six cases of cancer, three cases are young people aged 20-30, when cancer occurs rarely and the one is a child with leukaemia. Information about prostate cancer cases is also available. The oldest case of prostate cancer was found in Russia in a Scythian king who lived during the Iron Age. The second case of prostate cancer that metastasized to the pelvis, lumbar spine, forearm and leg bones, belongs to Egypt and dates about 2,250 years ago. One of the most well studied cases of cancer is skeleton 224-8. It had metastatic cancer with lytic lesions in such bones as clavicle, scapula, sternum, ribs and others.

Not only archaeological excavations but also the early mentions give facts about tumour cases. One of them is the Edwin Smith Papyrus, which provides the earliest known record of a tumour-like swelling of the breast. The second is a papyrus by the Egyptian physician Imhotep, which describes eight cases of a disease characterized by a "bulging mass in the chest".

Early theories about the causes of cancer are:

- 1. Humoral theory (Hippocrates). According to this theory cancer was caused by an excess of black bile in the body.
- 2. Lymph theory (the 1700s). It suggested that cancer consisted of fermenting and degenerating lymph, differing in density, acidity and alkalinity.
- 3. Infectious disease theory. Suggested in 1649-1652 and maintained in the 17th and 18th centuries, it described cancer as a contagious disease.
- 4. Blastema theory (the 1800s). It proved that cancer was made up of cells and not lymph, but those cancer cells were erroneously believed to develop from budding elements (blastema) between normal tissues.
- 5. Chronic irritation theory. R. Virchow proposed that all cells, including cancer cells, were derived from other cells and chronic irritation was the cause of cancer, but he believed incorrectly that cancers "spread like a liquid".
 - 6. Trauma theory (the late 1800s the 1920s). Trauma was thought to cause cancer.

Therefore, we can see that cancer is not the disease of modern origin. Scientists don't know exactly what the reason for cancer in ancient times was. Nevertheless, these discoveries influence the development of modern knowledge about cancer.