

Rudolf Virchow

Dr. Siddharth P. Dubhashi¹, Dr. Ratnesh Jenaw²

¹Director (Academics And Student Affairs), Professor And Head Of Unit¹, PG Student²

²Department Of Surgery, Mahatma Gandhi Medical College And Hospital, Mahatma Gandhi University Of Medical Sciences And Technology, Jaipur

Abstract: Rudolf Carl Virchow (1821-1902), was a German doctor, pathologist, social reformer, anthropologist, writer, editor and politician. He is known as "the Father of Modern Pathology" and is the "Founder of Social Medicine". He founded the journal "Virchow's Archive". He adored the first chair of pathological Anatomy at the University of Wurzburg in 1849. He was awarded the Copley Medal of the British Royal Society. He has made significant contributions in the field of Medicine and Surgery.

Keywords: contributions, pathology, social medicine, Virchow

I. INTRODUCTION

Rudolf Carl Virchow [1], born on 13th October 1821 at Schivelbein, Prussia (now Swidwin, Poland), was a German doctor, pathologist, social reformer, anthropologist, writer, editor and politician. He is known as "the Father of Modern Pathology" and is the "Founder of Social Medicine" [1]. He graduated from the Friedrich Wilhelm Institute of the University of Berlin in 1843, where he studied under the tutelage of Johannes Muller. He was an intern at the Charite Hospital, where he learned microscopy for his interest in pathology. In 1847, he along with his colleague Benno Reinhardt, founded the journal "Archives for pathological Anatomy and Physiology and for clinical Medicine", later known as *Virchow's Archive* [2]. In 1848, the Prussian government appointed him to investigate an outbreak of typhus in Upper Silesia. His report blamed the government and social conditions for the outbreak. He stated "Medicine is a social science, and politics is nothing else but medicine on a large scale" [3]. He adored the first chair of pathological Anatomy at the University of Wurzburg in 1849. The campus of Charite is now named Campus Virchow Klinikum. In 1861, he was elected a foreign member of the Royal Swedish Academy of Science. In 1892, he was awarded the Copley Medal of the British Royal Society [2,4].

II. SIGNIFICANT CONTRIBUTIONS[5,6,7,8,9]

- Published 'Cellular Pathology' in 1858
- Carried out first systematic autopsy in 1845
- Linked the origin of cancers from otherwise normal cells (Chronic irritation theory)
- Identified Leukemia (1847)
- Described Chordoma
- Virchow's triad - endothelial injury, stasis and hypercoagulability of blood.
- Introduced terms - Zoonosis, Chromatin, Agenesis, Parenchyma, Osteoid, Amyloid degeneration, Spina bifida
- Described the lifecycle of *Trichinella spiralis* in 1859
- Encouraged use of microscopes by medical students.
- Discovered Ochronosis (accumulation of homogentisic acid in connective tissues) in 1884
- First to analyze hair in criminal investigation in 1861
- Oppose the Pasteur's and Koch's germ theory of disease - considered social factors as poverty as major cause of disease.
- Virchow's Node (metastatic cancer in lymph node in left supraclavicular fossa - Troisier's sign)
- Virchow-Robin spaces (enlarged perivascular spaces)
- Virchow's line (line from root of nose to lamda)
- Virchow's Law (During craniosynostosis, skull growth is restricted to a plane perpendicular to the affected, prematurely fused suture and is enhanced in a plane parallel to it)
- Virchow's cell (macrophages in Hansen's disease)

Virchow died from heart failure at the age of 60 in Berlin, on 5th September 1902. The Rudolf Virchow Award is given by the society for medical Anthropology for research achievements in medical anthropology. Rudolf Virchow lecture, an annual public lecture is organized by the Romisch-Germanisches

Zentral museum Mainz , for eminent scientists in the field of palaeolithic archeology . The Rudolf Virchow center, a biomedical research center in the University of Würzburg was established in January 2002.

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