Karel Rokitansky
Karl Freiherr von Rokitansky

Born on 19th February 1804 in Hradec Králové (Königgrätz)

Died on 23rd July 1878 in Vienna

Jan Bureš

Fig. 1
Karel Rokitansky (1804 - 1878), the founder of clinical pathology. Courtesy of Olga Procházková, MD.

The famous Czech native, Karel Rokitansky was born on 19th February 1804 in Hradec Králové (Königgrätz), a beautiful city located at the confluence of two rivers, the Labe (Elbe) and the Orlice (Adler). He studied medicine in Prague and Vienna, graduated at the latter in 1828. He became an assistant in the Department of Pathology to Professor Johann Wagner at the Vienna Medical School and thereafter spent all his professional life in Vienna. After Wagner's death he became associate (1834) and then full professor of pathology (1844). Rokitansky performed his first autopsy in 1827, and when he retired 48 years later it was said that he himself or an assistant directed by him had undertaken 59,786 autopsies. Rokitansky's emphasis was on gross observation. Karel Rokitansky never practiced clinical medicine but he worked in close collaboration with an excellent clinician, with his lifelong friend Josef Škoda (1805 - 1881), another outstanding Czech personality living in Vienna at that period. Rokitansky stressed the importance of correlating clinical signs and symptoms of disease with their anatomical appearance found on autopsy. He established an essential basis for classification of diseases and founded clinical pathology as a scientific discipline.

He published over 400 scientific papers and 20 books. His fundamental monograph "Handbook of Pathologic Anatomy" was published in three volumes (1842 - 1846), of which the first was published as the last one. The number of original descriptions in this textbook is staggering. Another one of his greatest works was the last one "Defects in the Septum of the Heart" representing 14 years of hard work (published in 1875). Rokitansky's yield was astounding, covering pathology completely. Several notable contributions included his observations on congenital heart diseases, bacterial endocarditis, lobar and lobular pneumonia, emphysema, pulmonary complications of typhoid fever, multiple sclerosis, "lardaceous disease of the spleen, liver and kidney" (i.e. amyloidosis), goitre, spondylolisthetic deformity of the pelvis and many others. Rokitansky studied pathogenesis of atherosclerosis and his work includes humoral disease theory of dyscrasias (the doctrine of bodily fluids and how they are mixed in the body).

Rokitansky's contribution to gastroenterology and hepatology is quite extraordinary, too. Rokitansky described several oesophageal pathology cases (stenosing disease of the cardia with dilated oesophagus, pendulating polyps, traction diverticulum). In 1839 he published a brilliant paper on perforating gastric ulcer. Rokitansky was the first to notice the coincidence of gastric ulcer and cancer. He also described

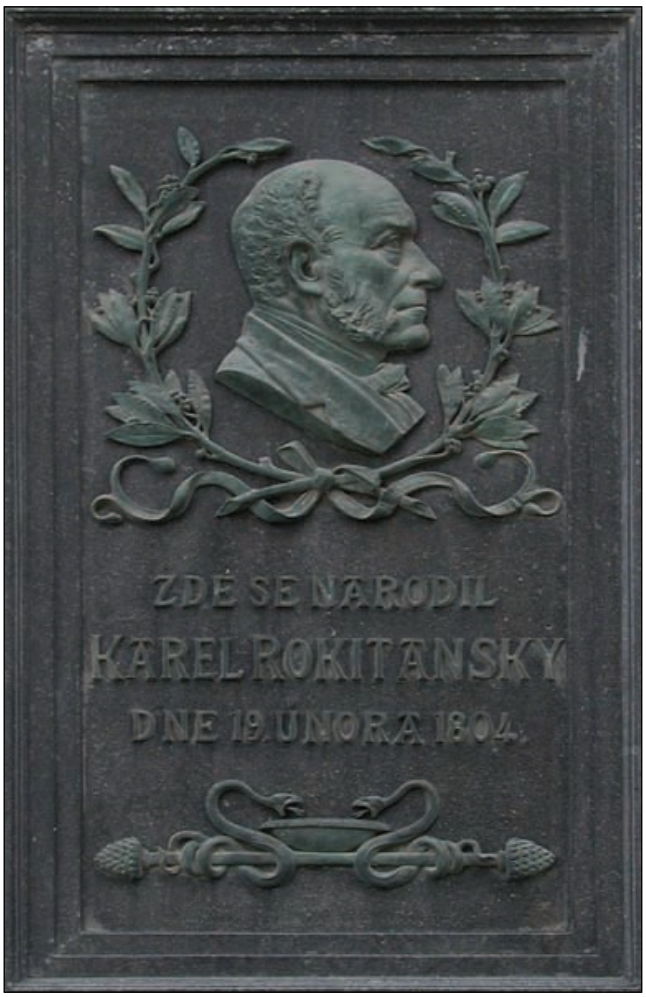

Fig. 2
Memorial plate for Karel Rokitansky placed on the house where he was born in the old quarter of Hradec Králové, close to the Cathedral. The Czech text on the plate reads: Karel Rokitansky was born here on 19th February 1804. The bas-relief was created by the famous Czech sculptor, Josef Václav Myslbek. This memorial plate was displayed in 1879, one year after Rokitansky's death.

Fig. 3
Professor Karel Rokitansky as the Rector of the Vienna University. Painting by Anton Einsle. Courtesy of Olga Procházková, MD.

acute dilatation of the stomach (1842) and studied different causes of bowel obstruction and described intestinal intussusception (1837). Karel Rokitansky was the first to describe superior mesenteric artery syndrome causing vascular compression of the duodenum (1861). Massive hepatic necrosis was recognized by Rokitansky as "acute yellow atrophy of the liver" including associated clinical signs of fulminant liver failure (1839). Last but not least, Karel Rokitansky was the first (1842) to observe obstruction of hepatic veins by a blood thrombus in liver cirrhosis, subsequently described by G. Budd (1845) and H. Chiari (1898).

From 1863, Rokitansky filled the important office of imperial adviser in the Ministry of Education and hence he significantly influenced the practical organisation of medical teaching not only in Vienna. He established the New (Second) Medical School of Vienna (together with Josef Škoda). In 1849 he became dean of the Faculty of Medicine, and in 1850 rector of the University. In 1862 he became the owner of a new Institute of Pathological Anatomy and founded a collection of pathological specimens (Collectio Rokitansky). He was then elected for the President of the Imperial Academy of Sciences (1869 - 1878).

Karel Rokitansky bestowed his patronage upon several students. He inspired Ignaz Semmelweiss to study medicine and later supported him in his efforts to eradicate puerperal fever in delivery wards. He stood by Semmelweiss when he was viciously attacked by his clinical colleagues in the medical establishment.

Rokitansky became a member for life of the House Lords of the Imperial Council (1867) thus rewarding his public labour. He was elevated to knighthood (on the occasion of his 70th birthday) and made Freiherr von Rokitansky (the title of Freiherr corresponds to baron). As a member of the House of Lords he preserved his liberal mind at all times.

Eponyms associated with Karel Rokitansky	
Rokitansky's disease (Budd-Chiari syndrome)	obstruction of hepatic veins by a blood clot in liver cirrhosis
Mayer-Rokitansky-Küster-Hauser syndrome	congenital absence of vagina and agenesis of uterus or rudimentary cornua uteri
Rokitansky's diverticulum	traction diverticulum of the oesophagus
Rokitansky's trias	pulmonal stenosis and subaortal septal defect of right lateral position of the aorta
Rokitansky-Cushing ulcer	stress ulcer of the stomach as a complication arising after head injury or neurosurgery
Rokitansky-Aschoff sinuses	sinuses in the gallbladder (as a result of hyperplasia and herniation of epithelial cells through the fibromuscular layer)
Rokitansky-Maude Abbott syndrome	persistance of the ostium primum and cleft mitral valve
Von Rokitansky's syndrome	corrected great arteries transposition
Rokitansky's mucocele	mucocele of the appendix
Rokitansky's syndrome (superior mesenteric artery syndrome)	decreased angle between the superior mesenteric artery and the aorta resulting in vascular compression of the third portion of duodenum
Rokitansky lobes	supernumerary lung lobes, these isolated masses of lung tissue are usually separated from both the tracheobronchial tree and the pulmonary vascular system

Karel Rokitansky had a reputation as an honest man, a brilliant mind, a charming person and an extraordinary character. Thus his legacy has remained alive and current to this very day.

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