



## Review Article

## Eponyms in digestive system pathology

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## ABSTRACT

Eponyms are known type of medical terminology. This mini-review provide highlights on some of the eponyms of the digestive system pathology.

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## 1. Introduction

An eponym is a person, place, or thing after whom or which someone or something is named.

There are several anatomical and pathological eponyms in the digestive systems.<sup>1-4</sup>

We have reviewed selected eponyms of the digestive system pathology, and present it in a tabulation form in table.1.<sup>5-41</sup>

The remarks surrounding the terms and eponyms in the digestive system are no different from those encountered in medicine in general.

We are not interested to mention these are remarks, as these have been discussed extensively in the medical literature. However, we list few examples.

Some of the eponyms are no longer in use. For example Frantz's tumor, named after Virginia Kneeland Frantz (1896–1967), (Figure 1), who was an American pathologist, is currently known as a solid pseudopapillary tumour.<sup>4</sup>



Fig. 1: Virginia Kneeland Frantz (1896–1967)

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This neoplasm was used to be called also Hamoudi's tumor, after Ala B. Hamoudi, who was a Pathologist at Columbus Children's Hospital (Ohio).



**Fig. 2:** Norman Rupert Barrett (1903 – 1979)



**Fig. 3:** Herman Boerhaave (1668 – 1738)

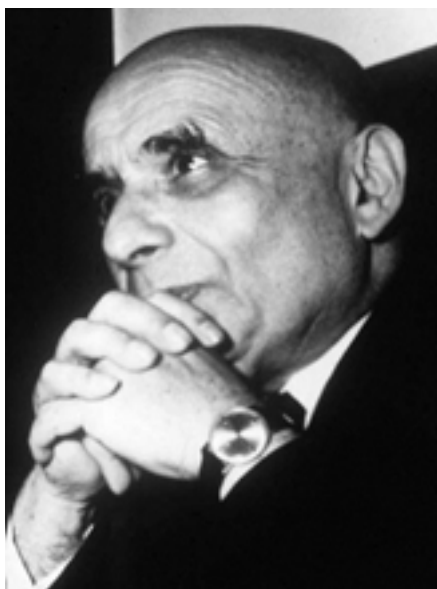
Eponyms do not always reflect the scientists who first describe the condition. Also naming more than one conditions after a single scientist may be a source of confusion (Table 1).



**Fig. 4:** George Budd M.D. (1808 – 1882)



**Fig. 5:** Hans Chiari (1851 – 1916)



**Fig. 6:** Jacques Caroli (1902-1979)



**Fig. 7:** William Thomas Councilman (1854-1933)



**Fig. 8:** Burrill Bernard Crohn (1884 - 1983)



**Fig. 9:** Jean Cruveilhier (1791 - 1874)



**Fig. 10:** Paul Clemens von Baumgarten (1848- 1928)



**Fig. 11:** Eldon J. Gardner (1909-1989)



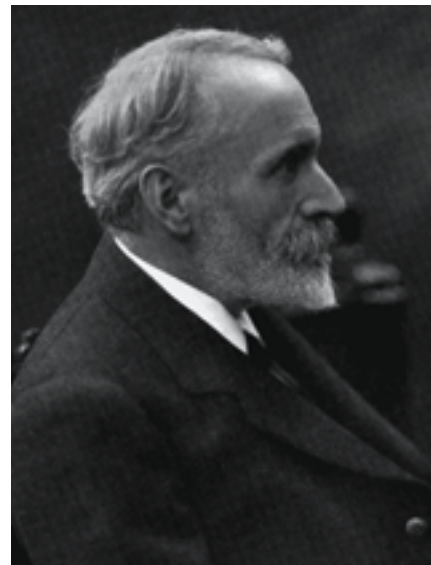
**Fig. 12:** Hermann Küttner (1870-1932)



**Fig. 14:** Johann Friedrich Meckel (1781-1833)



**Fig. 13:** George Kenneth Mallory (1900-1986)

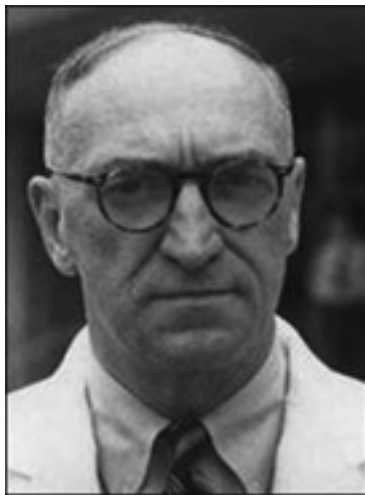


**Fig. 15:** Pierre Eugène Ménétrier (1859 - 1935)





**Fig. 16:** Jan Peutz (1886–1957)



**Fig. 17:** Harold Joseph Jeghers (1904–1990)



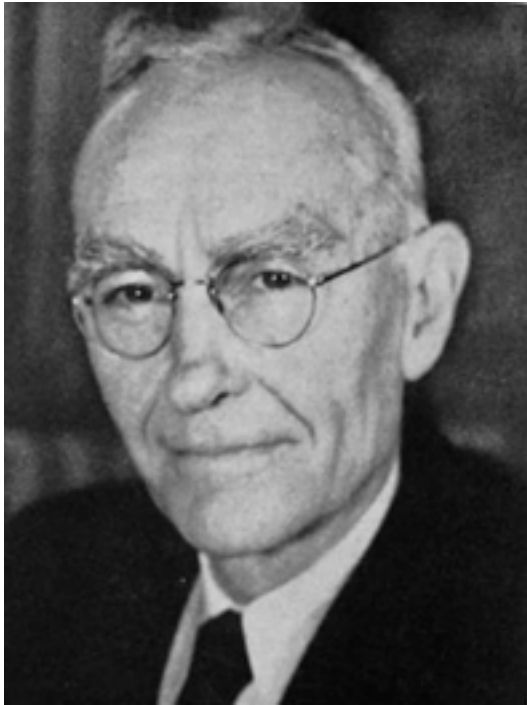
**Fig. 18:** Sister Mary Joseph (1856-1939)



**Fig. 19:** Armand Trousseau (1801 – 1867)



**Fig. 20:** George Hoyt Whipple (1878 –1976).



**Fig. 21:** Allen Oldfather Whipple (1881–1963).



**Fig. 23:** Friedrich Albert von Zenker (1825–1898)



**Fig. 22:** Samuel Alexander Kinnier Wilson (1878–1937)



**Fig. 24:** Robert Milton Zollinger (1903–1992).

**Table 1:** Selected eponyms in digestive system pathology:

Eponyms in digestive system pathology	Remarks
Barrett's esophagus. <sup>5,6</sup>	This is the term given to columnar-lined esophagus (CLE) which is known by 30 different terms and eponyms. In this condition, there is an abnormal (metaplastic) change in the mucosal cells lining the lower portion of the esophagus, from normal stratified squamous epithelium to simple columnar epithelium with interspersed goblet cells that are normally present only in the small intestine. It is considered to be a premalignant condition. It is named after Australian thoracic surgeon Norman Rupert Barrett (1903–1979), (Figure 2)
Boerhaave's syndrome. <sup>7,8</sup>	It is another term for esophageal perforations which occur due to vomiting. The condition is associated with high morbidity and mortality and is fatal without treatment. It was first documented by Herman Boerhaave (1668-1738), (Figure 3), who was a Dutch botanist, chemist, and physician. A related condition is Mallory-Weiss syndrome, which is only a mucosal tear.
Budd–Chiari syndrome. <sup>9–12</sup>	Budd–Chiari syndrome is a very rare condition, caused by occlusion of the hepatic veins that drain the liver. It presents with the classical triad of abdominal pain, ascites, and liver enlargement. It is named after George Budd M.D. (1808 – 1882), (Figure 4), who was a British physician, and Hans Chiari (1851 – 1916), (Figure 5), who was an Austrian pathologist.
Caroli syndrome. <sup>13</sup>	It is a rare inherited disorder characterized by cystic dilatation (or ectasia) of the bile ducts within the liver. It is named after Jacques Caroli (1902-1979), (Figure 6), who was a French gastroenterologist.
Councilman body. <sup>14,15</sup>	Also known as, Councilman hyaline body or apoptotic body is an acidophilic globule of cells that represents a dying hepatocyte. It is found in the liver of individuals suffering from viral hepatitis (acute), yellow fever, or other viral syndromes. Councilman bodies are named after American pathologist William Thomas Councilman (1854-1933), (Figure 7), who discovered them.
Crohn's disease. <sup>16</sup>	Crohn's disease is a type of inflammatory bowel disease (IBD) that may affect any segment of the gastrointestinal tract from the mouth to the anus. Burrill Bernard Crohn (1884 – 1983), (Figure 8), was an American gastroenterologist.
Cruveilhier–Baumgarten disease. <sup>17,18</sup>	The distension of the umbilical or paraumbilical veins can be caused by caused by liver cirrhosis and portal hypertension (Cruveilhier-Baumgarten syndrome) or congenital patency of the umbilical vein (Cruveilhier–Baumgarten disease). The latter is also known as Pégot-Cruveilhier–Baumgarten disease. It was first described by Pégot in 1833, and then by Jean Cruveilhier and Paul Clemens von Baumgarten Jean Cruveilhier (1791 –1874), (Figure 9), was a French anatomist and pathologist. Paul Clemens von Baumgarten (1848-1928), (Figure 10), was a German pathologist.
Gardner syndrome. <sup>19–21</sup>	Gardner syndrome, Turcot syndrome, or gastric adenocarcinoma and proximal polyposis of the stomach are believed to be a spectrum of familial adenomatous polyposis (FAP), depending on the specific mutation within the adenomatous polyposis coli gene (APC). FAP is a rare genetic disorder with autosomal dominant inheritance, defined by numerous adenomatous polyps, which inevitably progress to colorectal carcinoma unless detected and managed early. Eldon J. Gardner (1909–1989), (Figure 11), is an American geneticist who first described the syndrome in 1951.
Ivemark's syndrome. <sup>22,23</sup>	It is another name for, Renal-Hepatic-Pancreatic dysplasia syndrome. It is a rare sporadic or autosomal recessive disorder characterized by pancreatic fibrosis, renal dysplasia and hepatic dysgenesis. Biörn Ivemark (1925 – 2005) who was a Swedish pediatrician and pathologist, first reported it as "familial dysplasia of kidneys, liver and pancreas" in 1959. Since then, this combination of abnormalities has also been named "polycystic dysplasia" and "renal-hepatic-pancreatic dysplasia". This is to avoid confusion with asplenia-cardiac anomaly syndrome, which was reviewed by Ivemark et al and also bears Ivemark's name.

*Continued on next page*

Table 1 continued

Küttner's tumour. <sup>24</sup>	This is another name for chronic sclerosing sialadenitis. It is a chronic inflammatory disease of the salivary gland characterized by progressive periductal fibrosis, dilated ducts with a dense lymphocyte infiltration and lymphoid follicle formation and acinar atrophy. It is now regarded as a manifestation of IgG4-related disease. It is named after Hermann Küttner (1870–1932), (Figure 12), who was a German Oral and Maxillofacial surgeon.
Mallory–Weiss syndrome. <sup>25,26</sup>	It is one of the cause of upper gastrointestinal hemorrhage, in which an abrupt rise in abdominal pressure due to nausea or vomiting (because of alcoholism or bulimia, or any condition which causes violent vomiting and retching such as food poisoning) induces a tear near the esophagogastric mucosal junction. It represents about 3-15% of all cases of upper gastrointestinal hemorrhage. The condition was first described in 1929. It is named after George Kenneth Mallory (1900–1986), (Figure 13), who was an American pathologist, and Soma Weiss (1898–1942), who was a Hungarian-born American physician.
Meckel's diverticulum. <sup>27</sup>	It is an out-pouching of the ileum found in approximately 2% of the population. It is considered to be a congenital remnant of the vitellointestinal duct. Named after, Johann Friedrich Meckel (1781-1833), (Figure 14), who was a German anatomist.
Ménétrier's disease. <sup>28</sup>	It is a rare, acquired, premalignant disease of the stomach characterized by massive gastric folds, excessive mucous production with resultant protein loss, and little or no acid production. It is named after a French physician and pathologist, Pierre Eugène Ménétrier(1859–1935), (Figure 15).
Paterson-Kelly syndrome. <sup>29</sup>	Paterson-Kelly syndrome or Plummer-Vinson (see below), presents as a classical triad of dysphagia, iron deficiency Anemia and esophageal webs. The syndrome eponym has been frequently discussed. The most used name is Plummer-Vinson syndrome, named after Henry Stanley Plummer (1874–1936) and Porter Paisley Vinson (1890–1959) who were physicians on the staff of the Mayo Clinic. Another term is Paterson-Kelly syndrome, named after, Donald Ross Paterson (1863–1939) and Adam Brown-Kelly (1865–1941), both British laryngologists, who published their findings independently in 1919. They were the first to describe the characteristic clinical features of the syndrome.
Peutz–Jeghers syndrome (PJS). <sup>30</sup>	It is a rare autosomal dominant genetic disease characterized by mucocutaneous pigmentation and multiple polyps in the gastrointestinal tract. PJS can be classed as one of various hereditary intestinal polyposis syndromes and one of various hamartomatous polyposis syndromes. It is named after Jan Peutz (1886–1957), (Figure 16 ), who was a Dutch Internist, and Harold Joseph Jeghers (1904–1990), (Figure 17), who was an American physician.
Plummer vinson syndrome.	See Paterson-Kelly syndrome, above.
Sister Mary Joseph. <sup>31</sup>	It is a metastatic lesion of the umbilicus originating from intra-abdominal or pelvic malignant disease. The English surgeon Hamilton Bailey, in his famous textbook "Physical Signs in Clinical Surgery" in 1949, coined the term "Sister Joseph's nodule" after Sister Mary Joseph (1856-1939) (Figure 18) a superintendent nurse at St. Mary's Hospital in Rochester, Minnesota, USA, who was the first to observe the association between the umbilical nodule and intra-abdominal malignancy.
Trousseau sign of malignancy or Trousseau's syndrome. <sup>32</sup>	It is a medical sign characterized by recurrent, migratory thrombosis in superficial veins and in uncommon sites, such as the chest wall and arms. This syndrome is particularly associated with pancreatic, gastric and lung cancer and Trousseau's syndrome can be an early sign of cancer It is named after, Armand Trousseau (1801 –1867), (Figure 19), who was a French internist. He first described this finding in the 1860s; he later found the same sign in himself, was subsequently diagnosed with gastric cancer and died soon thereafter
Turcot syndrome. <sup>20,21</sup>	It is a rare hereditary syndrome characterized by a combination of brain tumors and colorectal cancer. It was first reported by Canadian surgeon Jacques Turcot (1914-1977).

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Table 1 continued

von Meyenburg complex. <sup>33</sup>	VMC is another name for multiple bile duct hamartoma. It is a benign liver malformation that includes biliary cystic lesions with congenital hepatic fibrosis causing ductal plate malformations. It is named for Hanns von Meyenburg (1887-1971), who was a Swiss Pathologist.
Whipple's disease. <sup>34-37</sup>	It is a rare, systemic infectious disease caused by the bacterium <i>Tropheryma whipplei</i> . Whipple's disease primarily causes malabsorption but may affect any part of the body including the heart, brain, joints, skin, lungs and the eyes. Dr. George Hoyt Whipple (1878–1976), (Figure 20), initially described this condition in 1907. He was the first American Nobel Prize laureate in Physiology.
Whipple triad. <sup>37,38</sup>	It consists of neuroglycopenic symptoms and sympathetic drive along with low serum glucose levels (<50 mg/dL) and a complete reversibility of these symptoms with prompt administration of glucose. These triad may indicate insulinoma. The triad is named after Allen Oldfather Whipple (1881–1963), (Figure 21), who was an American surgeon, also famous for Whipple procedure a type of surgery in pancreatic cancer.
Wilson's disease. <sup>39</sup>	Also known as hepato-lenticular degeneration. It is a genetic disorder in which excess copper builds up in the body. Symptoms are typically related to the brain and liver. It is named after a British physician Samuel Alexander Kinnier Wilson (1878-1937), (Figure 22), who was one of the world's greatest neurologists of the first half of the 20th century.
Zenker's diverticulum. <sup>40</sup>	Also known as pharyngeal pouch. It is a diverticulum of the mucosa of the human pharynx, just above the cricopharyngeal muscle (i.e. above the upper sphincter of the esophagus). It is a pseudo diverticulum (not involving all layers of the esophageal wall). It was first described by Ludlow in 1769, and after more than a century, Zenker published a full clinical pathological description in 1877. It was named in 1877 after, Friedrich Albert von Zenker (1825- 1898), (Figure 23), who was a German pathologist and physician.
Zollinger–Ellison syndrome (ZES). <sup>41</sup>	It is often referred to by the three-letter acronym (ZES). A rare clinical entity characterized by the appearance of multiple torpid peptic ulcers, generated by gastric hypersecretion stimulated by an excess of gastrin secreted by the non- $\beta$ cells of a pancreatic neuroendocrine tumor called a gastrinoma. The latter most commonly arise in the duodenum, pancreas or stomach. ZES is named after two American surgeons. Robert Milton Zollinger (1903– 1992), (Figure 24), and Edwin H. Ellison (1918–1970). However, a few more rigorous authors call it Strøm–Zollinger–Ellison syndrome since it was Roar Strøm (1903-19, a Norwegian surgeon, who in 1952 published an initial description. Neither Strøm nor Zollinger and Ellison were the first to identify this clinical condition as a new disease entity. However, Strøm's article was an important contribution to the early literature on the syndrome. In 75% of cases, ZES, occurs sporadically, while in 25% of cases it occurs as part of an autosomal dominant syndrome called multiple endocrine neoplasia type 1 (MEN 1).

## 2. Conflict of Interest

The authors have no conflict of interest to declare.

## 3. Financial Disclosure

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