Eponyms in Forensic Pathology

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Abstract

Eponyms are being used in several fields in medicine. Forensic pathology is no exception. The aim in this work is to shed some lights on the eponyms in forensic pathology.

INTRODUCTION

Forensic pathology is a branch of pathology which focuses on determining the cause of death by examining a corpse [1]. It involves the study of the cause of death of human being, time of death, postmortem changes, sudden death from natural disease or physical injuries and toxicology.

A post mortem is done by a doctor, usually during the investigation of criminal law cases and civil law cases in some jurisdictions. Forensic pathologists are also frequently asked to confirm the identity of a corpse.

Forensic pathologists examine the microscopic changes of samples obtained from dead bodies and identify the presence or absence of natural disease and other microscopic findings such as asbestos bodies in the lungs or gunpowder particles around a gunshot wound.

There are several eponyms in forensic pathology, and more than one paper were written on this topic [1,2].

It has been noted that eponymous terms in forensic pathology are characteristic for the German speaking countries and for all countries influenced by the German school of forensic pathology. They are less frequently used in the English medical literature [2].

The aim in this short communication is to shed some lights on the eponyms used in forensic pathology.

In Table 1 [2-26]; we listed selected eponyms in forensic pathology.

One needs to mention few noticeable remarks about eponyms. Some eponyms are difficult to be pronounced or spelled correctly from medical practitioners in other countries. Also,
Confusion may arise medically as some of the name of some of the scientists had been linked to several medical conditions.

Eponyms do not reflect the whole contributing scientists to this field, as there are great contributions not been coined eponymously.

Scientists who have been coined eponymously have not the same levels of contributions to the field.

Scientists like Auguste Ambroise Tardieu, Johann Ludwig Casper and Carl Liman have made great effort to develop forensic pathology into a science based on empirics.

<table>
<thead>
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<th>Table 1: Selected eponyms in forensic pathology.</th>
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<td><strong>Selected eponyms in forensic pathology</strong></td>
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<td><strong>Remarks</strong></td>
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<tr>
<td>Amussat’s sign&lt;sup&gt;3-5&lt;/sup&gt;</td>
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<td>It is typically a transverse laceration of the intimal layer of carotid arteries described in cases of hanging. Subtotal laceration of the carotid artery is not strictly specific for hanging and can also caused by blunt neck trauma, extreme overstretching, or whiplash-injuries. It is suggested that the most probable cause of Amussat’s sign is a combination of direct compression of the artery by the rope and indirect stretching because of the gravitational drag produced by the weight of the body. It is named after French surgeon Jean Zuléma Amussat (1796-1856), (Figure 1).</td>
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<td>Beckwith’s Sign&lt;sup&gt;6,7&lt;/sup&gt;</td>
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<td>This term is rarely used in the current practice. It refers to the intrathoracic bleedings, mostly, petechial thymus hemorrhages seen in cases of sudden infant death syndrome. It is named after, an American pathologist, John Bruce Beckwith, (Figure 2).</td>
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<td>Casper’s rule&lt;sup&gt;8&lt;/sup&gt;</td>
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<td>It is a rule used for estimating the time of death of buried human bodies. It is being used since 1860. The rule relates the decomposition process to different environmental conditions (air, water, earth). It says that 1 week in air equals 2 weeks in water equals 8 weeks buried. It is named after Berlin forensic physician Johann Ludwig Casper (1796-1864), (Figure 3).</td>
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<td>Krönlein shot&lt;sup&gt;9-11&lt;/sup&gt;</td>
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<td>It is a high velocity gunshot wound to the head which has caused eversion of the brain. It is named after, Rudolf Ulrich Krönlein (1847-1910), (Figure 4), who was a Swiss surgeon. He was a reputable Professor of Surgery at Zurich University and was nominated for Nobel Prize in 1902.</td>
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<td>Lichtenberg figures&lt;sup&gt;12-17&lt;/sup&gt;</td>
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<td>Also known as a ferning pattern. It is a tree-like electrical discharge patterns seen in the skin of the victims of lightning strikes. It is named after Georg Christoph Lichtenberg (1742-1799), (Figure 5), who was a German physicist. It is a transient finding, and not a burn, and biopsies of the skin reveal no pathologic changes. Lichtenberg figures are now known to occur on or within solids, liquids, and gases during electrical breakdown.</td>
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<td>Nysten’s rule&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>It describes the sequential onset of rigor mortis in the various muscle groups. The basic sequence of the solidifying body begins from the head down the body, in the order. The rule does not occur in all cases, as described. It is named after a French pediatrician, Pierre-Hubert Nysten (1771-1818).</td>
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<td>Paltauf’s Spots&lt;sup&gt;18&lt;/sup&gt;</td>
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<td>Also known as Paltauf’s hemorrhages. It refers to subpleural hemorrhages, seen in cases of drowning. In the forensic literature the opinion is often held that the presence of aqueous liquid in the paranasal sinuses in conjunction with other findings (plume of froth around the mouth and nostrils, emphysema aquosum, Paltauf’s spots, increased haemolysis etc) can be regarded as a sign of drowning. It is first described in 1882 by Arnold Paltauf (1860-1893), professor of forensic medicine at the German university in Prague. In the literature, they are also referred to as Rasskazov-Lukomskij spots, named after the two authors who described those 28 and 19 years, respectively, prior to Paltauf. Lukomskij (1841-1876) defined this phenomenon in the file 0 pútnach Tardmje pri zadas’enii in 1869.</td>
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On the other aspects, there are eponymous terms which are sometimes called by its non-eponymous synonyms. For example, Waterhouse-Friederichsen Syndrome (WFS) is also called hemorrhagic adrenals.

WFS are toxic febrile illness of acute onset with rapid deterioration, classically seen associated with Neisseria meningitides. It is named Rupert Waterhouse (1873-1958), an English physician, and Carl Friderichsen (1886-1979), a Danish pediatrician.

REFERENCES


