HISTORICAL VIGNETTES IN VENOUS SURGERY

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Hemorrhoid veins, the forgotten realm of the vascular surgeon

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Hemorrhoids have been a part of the human anatomy since the beginning of humankind. Interestingly, although hemorrhoids are inherently “vascular” structures, and can be enlarged because of vascular disease (portal hypertension, for example), it appears that vascular surgeons have always avoided this part of the body. Hemorrhoidal veins, by definition, are venous structures. In looking through several vascular surgery texts, it is striking to note that there is no mention of hemorrhoids in the typical vascular surgeon’s library. Several recent texts specifically written about venous disorders fail to even mention hemorrhoids.1,2 One text, Surgical Management of Venous Disease by Raju and Villavicencio, simply states this about hemorrhoids, when describing patients with vulvar varicosities: “Hemorrhoids were present in 87% of our patients.”3

Older vascular surgery texts, like Vascular Surgery by de Takats, in 1959, mention that hemorrhoids and vaginal varices often follow vena caval occlusion.4 Rutherford, in 1984, in his extensive Vascular Surgery text, simply mentions that hemorrhoids can be associated with portal hypertension.5 Apparentely, hemorrhoid veins might be considered the “Rodney Dangerfield” of the vascular system, getting no respect. When one of the early vascular surgery fellowships was started in 1966 at Walter Reed General Hospital (later named Walter Reed Army Medical Center), there was considerable discussion among involved general surgeons and cardiovascular surgeons about the relatively new area of interest in peripheral vascular surgery, setting it apart from cardiovascular surgery. An early consideration was that peripheral vascular surgery could start in the proximal ascending aorta just distal to the origin of the coronary arteries. The cardiovascular surgeons participating were comfortable with this decision. At the other end of the vascular system, however, everyone was adamant about stopping before being involved with the hemorrhoidal veins. This was even with the knowledge that considerable postoperative hemorrhage following the traditional hemorrhoidectomy of the 20th century could create significant challenges for surgeons and threats to patients. Hemorrhoid hemorrhage could even involve mandatory blood transfusions. The early interest in vascular surgery in the United States concentrated on the arterial side, with avoidance of the venous system to the point that one of the early peripheral vascular fellows (who later became the physician to a United States President) answered the telephone by announcing: “Peripheral Arterial Clinic.”

What are hemorrhoids, and how do they relate to vascular surgery? Internal hemorrhoids, characterized by a relative lack of sensation, are found above the dentate line of the anal canal, while external hemorrhoids, acutely sensitive, are below the dentate line. Patients often do not differentiate between the two types of hemorrhoids but state that they are “…suffering from hemorrhoids” or “…have hemorrhoids.” “Having hemorrhoids” is a somewhat quizzical comment; everyone has hemorrhoids. Hemorrhoids are as normal a part of our common anatomy as are legs, arms, and heads. We are supposed to have hemorrhoids, and if we did not, we would lack the gasket-like effect they provide, occupying the space in the anal canal outside the sphincters. Thus hemorrhoidal tissue seems to prevent leakage. Wise surgeons who operate on hemorrhoids seldom attempt to eliminate them entirely, but selectively remove tissue that is abnormally enlarged, or is prolapsed or bleeding. A proper hemorrhoidectomy should always leave columns of healthy hemorrhoidal tissue behind.

The area of the anal verge is arguably the most sensitive area of the entire body when it comes to the sensation of pain. Surgery in this area can be excruciatingly painful. Attacks of thrombosis can be debilitating. Since all of us have hemorrhoids, we are all likely, at some time in our lives, to suffer from them, to a greater or lesser degree. Very often, hemorrhoids become symptomatic when one has constipation and subsequent straining. Blood can be
forced into external hemorrhoids and then trapped by a tightening of the anal sphincters, allowing stagnation and coagulation. Thrombosed external hemorrhoids are the result. With chronic straining, often associated with constipation, eventually internal hemorrhoids become larger and larger, and begin prolapsing. They can also thrombose, or begin bleeding, and cause staining on underwear if their mucosa is exposed by prolapse.

ANATOMY OF HEMORRHOIDS

Hemorrhoid tissue is composed of venules, arterioles, elastic and connective tissue, smooth muscle, skin, and mucosa. The hemorrhoid complex is a so-called “vascular cushion.” Often, enlarged hemorrhoids are found in three constant sites, the right anterolateral, the right posterolateral, and the left lateral columns. Internal hemorrhoids are covered with mucosa, while external hemorrhoids are covered with anoderm, as they are distal to the dentate line. The venous drainage of the anal canal is important anatomically and can explain why patients who have severe cirrhosis and portal hypertension can have massive hemorrhage from enlarged upper anal canal varices, which can be mistaken for simple “hemorrhoids.” The lower part of the anal canal drains through the inferior and middle rectal veins and internal pudendal veins, into the internal iliac veins, and hence into the inferior vena cava. The superior anal canal venous system is portal, since the superior rectal vein drains into the inferior mesenteric vein, and thus cirrhotic patients can definitely have anorectal varices that can bleed massively. One caveat to inexperienced general surgeons is to beware of these patients, who can present with large varices that can look like hemorrhoids. A “hemorrhoidectomy” in such a patient can be an exercise in controlling difficult bleeding (Fig 1).

Given that all of humankind has hemorrhoids, it is not unlikely that at times throughout history, these hemorrhoids can be symptomatic to the point of causing a true disability. When a leader of a nation can no longer function, or when a famous actor cannot act, or a sports figure cannot play — hemorrhoids of the famous become a part of history, or even the cause of history. This report will discuss the early historical mention of hemorrhoids and describe several historical figures that suffered from hemorrhoids and made history in the process.

INFLUENCE OF HEMORRHOIDAL DISEASE IN ANCIENT HISTORY

The Old Testament has several accounts of a condition called “emorods,” which many believe to be an ancient form of the word “hemorrhoids.” For instance, in Deuteronomy 28, we read the following: “The Lord will smite thee with the botch of Egypt, and with the emerods, and with the itch, whereof thou canst not be healed.” In 1st Samuel, we read that the Lord punished
the people of Ashdod, as “...he destroyed them, and smote them with emorods.” Lest there be confusion about what the word “emorods” means, the Latin Vulgate version of the Bible translates this same passage as “...and He smote His enemies in the more secret parts of their posteriors.” The Philistines took the Ark of the Covenant and were stricken with hemorrhoids, no matter where they went. After finally returning the Ark to the Israelites, as part of doing penitence for losing the Ark in the first place, the Israelites made five golden emorods, which were to be placed in the Ark. Surely no other body part has been so honored throughout history.10

Hippocrates. Hippocrates taught that bile or phlegm, when entering the veins of the rectum, caused hemorrhoids, and he had several procedures to remove them, including cautery and excision, no doubt under barbaric conditions. He relied on the patient to scream as he was working with hot iron cautery, since screaming caused the hemorrhoids to swell, making them easier to remove. He used his fingernails to rip hemorrhoids from their beds, and he had several potions which he used after surgery to promote healing and provide relief of pain.11

St Fiacre. Called the Patron Saint of Hemorrhoids, St Fiacre was known for medicinal cures, gardening, and a pious life. He was born in Ireland in the 6th century and later moved to France. He reportedly sat one day on a stone, which became soft, and somehow from that legend came the idea that he could cure hemorrhoids. He is also the Patron Saint of sufferers of venereal diseases, taxi cab drivers, fistula patients, etc.12

MODERN-DAY EXAMPLES OF HEMORRHOIDAL DISEASE THAT CHANGED HISTORY

Perhaps the best example of how the lowly hemorrhoid can bring down nations was demonstrated at the Battle of Waterloo, which took place south of Brussels, Belgium, in June 1815. Napoleon Bonaparte was known as a formidable foe on the battlefield, and always was seen on his horse, leading his troops into the fray (Fig 2).13 For over 18 years, it had always been the case that he relished battle and was fearless as he went forward. And when wounded, he apparently hid his wounds, so that his troops believed him to be invincible in battle. However, at Waterloo, Napoleon spent the battle sitting at a small table, so far from the actual field that he could not see what was happening, and his troops could not see him. When he walked, it was with his legs spread apart, apparently in pain. Riding his horse was out of the question. Napoleon fell asleep at his table during the battle, and seemed to be completely exhausted. Why was the Emperor so different from his usual self? Years after Napoleon’s death, his younger brother Jerome confessed on his (Jerome’s) deathbed that Napoleon was suffering from painful hemorrhoids at Waterloo. Comments about the royal derrière were just not acceptable in Napoleon’s day, and this information about hemorrhoids at Waterloo had been a guarded secret for years. It partially explains the great defeat of the French Army at Waterloo.14

Several instances in more recent times come to mind as we reflect on the influence of hemorrhoids on history. One hemorrhoidal attack made the news back in 1978, when President Jimmy Carter was in the White House. According to Martin Tolchin, of the New York Times, President Carter had “...an aggravated attack of hemorrhoids” on December 21, 1978, and was facing surgery, although according to Jody Powell, the White House press secretary, if surgery was deemed necessary, it would be elective surgery and not considered an emergency. In any case, after cancelling meetings and going to bed, President Carter declared that he felt much better, and on December 23, the New York Times reported that “Carter Leaves Sickbed to Return to Plains for Holiday.” His hemorrhoidal crisis illustrates that sometimes conservative treatment is effective, and surgery is not always warranted.15

A great baseball player was once challenged by hemorrhoids. George Brett was a record-setting third baseman, playing for the Kansas City Royals. In 1980, during the World Series with the Philadelphia Phillies, Brett left Game 2 in the 6th inning because he was having hemorrhoidal pain. He had minor surgery the next day (excision of a thrombosed external hemorrhoid, perhaps?), and in Game 3 returned to hit a home run, as his Royals won in
10 innings, with the final score of 4-3. After that game, he was quoted as saying: "...my problems are all behind me." During the spring of 1981, he missed 2 weeks of training to have a more formal hemorrhoidectomy.16

Surely, there have been many others who have had similar attacks, but often we do not broadcast difficulties in the region of our hemorrhoids. We can have a sense of how much suffering is going on by drug sales. For instance, Preparation H, a nonprescription ointment, sold over $100,000,000 in products worldwide in 2011, with an annual growth in sales of over 3.5%.[17] Laxative over-the-counter sales, often purchased for hemorrhoid symptoms, probably total over $500,000,000 in the United States yearly.18

CONCLUSIONS

Like other veins, hemorrhoid veins can thrombose, cause pain, dilate, inflame, and bleed. Does pathology in the hemorrhoid veins identify an increased risk of similar pathology in other components of the venous system? We anticipate that there will be increased research opportunities considering genetics, coagulation pathways, and molecular biology. And hemorrhoid veins may gain more respect in vascular surgery in the future!

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