Vascular Birthmarks

“What’s Wrong with Your Face?”
Introduction

I hear some variant of the question “What’s wrong with your face” at least once a week. Dark red skin covers the majority of the right side of my face. My red skin might appear as off-putting for some, but, in reality, a port wine stain birthmark causes the red pigmentation of my skin. People tend to shroud birthmarks in mystery because of their lack of understanding of birthmarks. This report should increase people’s understanding of the medical origins of vascular birthmarks, which will help to dispel the philosophical origins of them and help people understand the potential medical risks involved with birthmarks and how to treat potential medical risks.

History and Background of Birthmarks

Some people fail to realize how many people have birthmarks (Ryan & Warren, 2012). Research suggests that birthmarks occur in up to eighty percent of infants (“Birthmarks,” 2016; Benjamin, 2013). In the broadest use of the term, birthmarks appear quite frequently (Benjamin, 2013). Birthmarks typically appear at birth or soon after, and many birthmarks fade away as a child gets older (“Birthmarks,” 2016; “Hemangiomas, Infantile,” n.d.). Birthmarks can come in all sorts of different shapes, colors, sizes, and people can find a birthmark almost anywhere on the body including the face, back, chest, arms, legs, feet, etc. (“Birthmarks,” 2016). Despite their commonality, birthmarks were considered a medical mystery in the past.

Birthmarks have many different believed origins in different cultures. Western culture calls birthmarks angel kisses or stork bites to try to diminish the oddity of the mark (“Cosmetic Procedures” n.d.). In many parts of the world, people relate birthmarks to thoughts and actions of the mother during pregnancy, more specifically, unsatisfied wishes of the mother (Dossey, 2015). For example, if a woman craves strawberries during pregnancy but does not get
strawberries, then the child will have a strawberry birthmark. If a mother craves wine during pregnancy, but does not get wine then the child will bear a port-wine-stain birthmark. If a mother craves coffee during pregnancy, but does not satisfy the craving then the child will bear café au lait spots as a result. Many cultures relate a mother’s actions to resulting birthmarks. Some cultures even go as far as to hypothesize that birthmarks occur because of past lives and use birthmarks as proof of marks of reincarnation. Some Asian cultures even mark the dead with soot almost as if to brand the deceased and make them identifiable in his or her next life (Dossey, 2015).

Despite all of the different cultural myths surrounding birthmarks, science dispelled the theory of maternal impressions and discovered biological origins for birthmarks (Gelmetti, 2018). Note that two general types of birthmarks exist: vascular and pigmented birthmarks, and multiple different specific types of birthmarks that make up the two general types (“Birthmarks,” 2016). When too many blood vessels or abnormally wide blood vessels appear during infancy, vascular birthmarks form (“Birthmarks,” 2016). Some of the subclasses of vascular birthmarks include macular stains, hemangiomas, and port-wine-stains (“Birthmarks,” 2016; “Cosmetic Procedures” n.d.).

Macular stains, the most common type of vascular birthmark, typically appear on the neck or face (“Cosmetic Procedures” n.d.). People refer to macular stains located on the face as “angel kisses” and macular stains located on the neck (typically the back of the neck) as “stork bites” (“Cosmetic Procedures” n.d.; Dossey, 2015). These birthmarks can appear at birth or up to a couple of months after birth and tend to fade before the child can even remember having one, although some do last into adulthood (“Birthmarks,” 2016). Due to their commonality and ability
to quickly fade, doctors consider macular stains benign and leave macular stains untreated in most medical cases (“Cosmetic Procedures” n.d.).

Figure 1: Macular stain

Hemangiomas, also referred to as “strawberry marks,” (“Birthmarks,” 2016) occur in around ten percent of infants, which makes them the most common tumor found in infants (“Hemangioma, Infantile,” n.d.). A benign tumor, hemangiomas typically appear two to three weeks after birth. Most of the birthmarks appear in the head region, although they can appear anywhere on the body. Hemangiomas appear as small, red, and slightly raised parts of skin, although the birthmark can come in any size and, if deeper in the skin, can also take on a bluish hue (“Birthmarks,” 2016). Hemangiomas have a growth period that typically lasts for four to six months and then a shrinking phase that can last up to nine years, which typically results in the birthmark fading away completely. While not always, hemangiomas can sometimes leave a bit of fatty tissue and tiny, dilated blood vessels. While typically fine if left untreated, some hemangiomas can cause ulcerations, obstruction of vision, obstruction of hearing, obstruction of breathing, and distortion of facial features (“Hemangioma, infantile,” n.d.; Chung & Cohen, 2014).
Figure 2: Hemangioma

A rare form of vascular birthmarks, port wine stain birthmarks occur in about three out of every one thousand babies, making the odds of having one less than one percent (“Port-Wine Stain Birthmarks,” n.d.; Sharif, Tavadas, Mazhar, Rahimian, Kelly, Choi... 2012). Typically appearing on the face or arms (“Port-Wine Stain Birthmarks,” n.d.), port wine stains take on a pinkish red hue at birth, but instead of slowly fading like other vascular birthmarks, port wine stains grow to a darker red and sometimes purple color as the child gets older (“Slide Show: Birthmarks,” 2018; “Port Wine Stains,” 2016; “Port Wine stains,” n.d.). As a child with a port wine stain birthmark gets older, the skin that makes up the port wine stain can get thicker and develop a pebble-like texture (“Slide Show: Birthmarks,” 2018). While unlikely, port wine stains can cause medical problems for children. Medical problems caused by port wine stains include Sturge-Weber syndrome, glaucoma, and Klippel-Trenaunay Syndrome (“Klippel- Trenaunay Syndrome (KTS),” n.d.; “Port Wine Stains,” n.d.). These medical conditions rarely happen— but will require treatment (“Port Wine Stains,” n.d.; “Port-Wine Stain Birthmarks,” n.d.). Many...
healthy children with port wine stains still seek out treatment for their birthmarks because of emotional stress caused by looking different ("Port Wine Stains," n.d.; "Port-Wine Stain Birthmarks," n.d.).

![Figure 3: Port wine stain](image)

**Medical Problems with Birthmarks and Treatment Plans**

Parents and children shouldn’t worry about vascular birthmarks, but rare cases of vascular birthmarks causing medical problems exist, so parents should take the rare cases into consideration when having a newborn with a birthmark. Doctors consider macular stains harmless because of their size and how quickly they fade (“Cosmetic Procedures, Birthmarks, and Other Abnormal Skin Pigmentation,” n.d.). Hemangiomas can cause problems with hearing, vision, and breathing depending on where the hemangioma resides on the body (“Hemangioma,” 2018; Chung & Cohen, 2014). Port wine stains can cause Sturge-Webber Syndrome, glaucoma, and Klippel-Trenaunay Syndrome (“Klippel- Trenaunay Syndrome (KTS),” n.d.; “Port Wine Stains,” n.d.). While seeing a list of possible medical problems resulting from birthmarks may scare some, remember that all of these risks rarely happen (“Hemangioma,” 2018;).
Classified as benign vascular tumors, the medical community ranks hemangiomas as the most common tumor found in children (“Hemangiomas, Infantile” n.d.). In most cases, hemangiomas have a growing period and then fade as children get older and typically disappear by the time children reach the age of nine or ten (“Hemangioma, Infantile,” n.d.). Rare cases of hemangiomas disrupting vision during the birthmark’s growth period (Chung & Cohen, 2014); however, the medical risks of hemangiomas typically start after the birthmark fades. In rare cases, hemangiomas will leave behind a fatty scar tissue which can cause irritation or, depending on the location of the scar tissue, can cause problems with breathing, hearing, or vision (“Hemangioma,” 2018). Few treatment options exist for hemangiomas. Doctors will try basic medication plans, but the medication plans contain a lot of side effects (Mattassi, Loose, & Vaghi, 2015). Laser treatment, a potential treatment option for hemangiomas, does not often get used (Mattassi, Loose, & Vaghi, 2015). For now, doctors don’t offer many treatment plans for hemangioma patients (“Hemangioma,” 2018).

Port wine stain birthmarks get treated more than most birthmarks, but note that most treatment plans do not occur because of medical risks (“Port-Wine Stain Birthmarks,” n.d.; “Port-Wine Stains,” 2016). Doctors diagnose about eight percent of the port wine stain population with Sturge-Webber Syndrome (Chhabria, 2017). Doctors classify Sturge-Webber Syndrome as a congenital, non-familial disorder (Chhabria, 2017; “New to SWF: Understanding Sturge-Weber,” n.d.). The disease only presents itself in people with port wine stain birthmarks around the eye (Chhabria, 2017). The disorder can cause problems with eyes, the endocrine system, organs, and natural growth and development, but each case differs, and sufferers experience varying levels of symptoms (Chhabria, 2017; Haggstrom, 2014). People who suffer from Sturge-Weber frequently suffer from glaucoma as well due to the location of the birthmark.

![Figure 4: Sturge Weber Syndrome](image)

Port wine stains can also lead to Klippel-Trenaunay Syndrome, which involves having a port wine stain on the legs or arms (“Klippel-Trenaunay,” n.d.; “Klippel- Trenaunay Syndrome (KTS),” n.d.). Klippel-Trenaunay classifies as a growth disorder where the limb with the port wine stain birthmark grows larger than other limbs or doesn’t fully develop and appears as smaller than other limbs. Treatment for Klippel-Trenaunay can vary from physical therapy to elastic stockings, to surgery (“Klippel-Trenaunay,” n.d.; “Klippel- Trenaunay Syndrome (KTS),” n.d.).
Doctors have reported incredibly rare cases of birthmarks leading to death (Varma, Vassallo, Swiderska, Jones, & Tang, 2017). In a researched case, doctors delivered a baby whose body was almost entirely covered in birthmarks. A perfectly healthy family delivered the baby, and the delivery of the child went smoothly. Two months after birth, the infant was diagnosed with a variety of different health concerns, which doctors blamed on the birthmarks. The child passed away about a week after her final diagnosis. Most birthmarks do not cause any harm, but in some rare cases, death can occur (Varma, Vassallo, Swiderska, Jones, & Tang, 2017).

Most people with a vascular birthmark will never experience any medical problems, but birthmarks do present other problems especially for people with port wine stains (“Port-Wine Stain Birthmarks,” n.d.; “Port-Wine Stains,” 2016). As children grow and become more aware of
their appearance, easily visible birthmarks can lead to emotional stress. Port wine stains tend to appear on the face and do not fade with time, which can leave many people with port wine stains feeling unhappy about their physical appearance. As mentioned before, doctors commonly treat port wine stains for nonmedical reasons. Teenagers would rather blend in than stand out, so treatment comes into play for people who feel self-conscious about their birthmarks (“Port-Wine Stain Birthmarks,” n.d.; “Port-Wine Stains,” 2016; Zeigler-Hill, 2013).

Doctors typically use laser surgery as the main treatment plan for vascular birthmarks (Wailbel, Holmes, Rudnick, Woods, & Kelly, 2018; Langdon, 2004). People with vascular birthmarks use cosmetic laser surgery because of the laser surgery’s success rate at removing or lessening pigmented skin. People largely use laser surgery for tattoo removal, but people with unwanted vascular birthmarks (normally port wine stains) can seek out laser surgery with a doctor’s permission. Some cases of hemangiomas cause doctors to urge their patients not to seek out laser surgery. If doctor predict a birthmark will fade away by adulthood, then most doctors just encourage their patients to wait until the birthmark fades on its own. Laser surgery may not fully remove unwanted vascular marks, but, if allowed by a doctor and wanted by a patient then, the patient should consult a laser surgery clinic (Wailbel, Holmes, Rudnick, Woods, & Kelly, 2018; Langdon, 2004).

Living with a Birthmark

Parents who have children with birthmarks should not fill themselves with worry and anxiety for their child (Ryan & Warren, 2012). Birthmarks, in most scenarios, don’t cause any pain. Medical risks with birthmarks don’t appear often, and most birthmarks fade away before a
child reaches their teenage years (“Birthmarks,” 2012). Instead of worrying, new parents should embrace their child’s birthmark and teach their children how to love themselves for more than just physical appearance (Zeigler-Hill, 2013). A birthmark doesn’t define a person.

Curious people fill the world, and parents should prepare their children for potential question about birthmarks. As a nineteen-year-old with a port wine stain covering a large portion of the right half of my face, people ask me about my birthmark in a variety of ways and not normally politely. Questions about my birthmark range from “What’s wrong with your face?” to “I think you’re having an allergic reaction,” to “nice burn.” I have heard both compliments and insults about my birthmark. People need to learn more about birthmarks and realize the commonality of the them (Ryan & Warren, 2012). A birthmark only adds a small, unique physical characteristic.

In most cases, people with birthmarks don’t need to worry about their birthmark. Parents should have their children checked on by a profession to ensure that there no problems with the birthmark exist, but remember that most birthmarks fade and cause zero medical problems (“Port Wine Stains,” n.d.). People also need to remember that a large portion of the population was born with a birthmark (Ryan & Warren, 2012). The area of pigmented skin should carry no additive negatives for a person, but instead make a up a tiny portion of physical characteristics.

**Conclusion**

I am not defined by my birthmark. I don’t have problems with my birthmark. Sure, I can’t rob a bank without an elaborate mask, but my birthmark doesn’t hold me back from living and enjoying life. People have forced me to grow thicker skin in regards to my birthmark, but I don’t get immediately offended anymore when people ask about my face.
While some of the cultural legends surrounding birthmarks may sound interesting, vascular birthmarks appear quite frequently on newborns because of irregular blood vessels in the skin. Birthmarks have low medical risks and living with a birthmark typically just requires some self-confidence. Nobody should define a person based solely on physical qualities. Giving people a deeper understanding of birthmarks will hopefully help to reduce people’s ignorance to the commonality of birthmarks, and make people more aware of how to identify a birthmark.
References


Klippel-Trenaunay. (n.d.). Retrieved from https://cmtc.nl/en/ovm/klippel-trenaunay?gclid=EA1aIQobChMIuPzm04j73gIVAb7ACCh2CYw_zEAAYASAAEgJynPD_BwE


This source explains to new parents what having a child with a birthmark entails, and potential outcomes of birthmarks. This article will be useful in my paper because it explains to new parents how to handle children with birthmarks, and helps reassure parents of the minor health risks involved with birthmarks.


This article details a unique case of a newborn child with healthy parents whose body was covered in birthmarks. The child ended up passing away about two months after birth. The article goes on to try and connect certain birth defects with birthmarks. I can use this article in my paper to show the most extreme case of a birthmark.


This source lists out the results of a clinical trial of laser treatment on port wine birthmarks ranging from three-month-old patients to 72-year-old patients. Depending on where the port wine stain is present, some people need to receive laser treatment to help lessen the intensity of the birthmark. I can use this in my essay to list out potential treatments of port wine stain birthmarks.


Images

Figure 1: Macular Stain
https://www.wikihow.com/Remove-Birthmarks

Figure 2: Hemangioma

Figure 3: Port wine stain
https://www.glamourmagazine.co.uk/article/port-wine-stain-social-media

Figure 4: Sturge Weber Syndrome
https://step1.medbullets.com/neurology/113095/sturge-weber-syndrome

Figure 5: Klippel Trenaunay Syndrome
https://healthjade.com/klippel-trenaunay-syndrome/