**Read Item - Benign Vascular Naevi And Tumours**

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**Publisher/Journal:** **Keywords:** Benign Vascular Tumors Tumours Naevi

**Abstract:** Doctor's resource on Benign Vascular Naevi And Tumours

## Benign Vascular Naevi And Tumours

**Pyogenic granuloma** (PG) is a common benign vascular tumour. About 3% of pyogenic granuloma occur on the scalp. They are bright red, soft, highly vascular papules or nodules that range in size from 2-3mm to several centimetres. Larger lesions may be pedunculated, mushroom shaped or sessile. The clinical differential diagnosis includes amelanotic melanoma or a Spitz naevus.

Lesions may arise spontaneously or appear following minor trauma such as a scratch from a rose thorn. They enlarge for several weeks and thereafter persist indefinitely unless treated. PGs are often multiple and may ulcerate and bleed profusely if knocked. Young children are often develop PGs on the face, while older children and adults generally develop them on their face, hands, arms and upper chest. The mucous membranes of the mouth and nose can also be affected and lymphangitis is an occasional complication.

Histology shows an epidermal colarette surrounding an upper dermal proliferation of endothelial cells and capillaries, that resembles granulation tissue. Treatment options include cryotherapy, curettage and electrocautery, and surgical excision. Biopsy tissue should be sent for histology if there is any doubt about the diagnosis. Local recurrences may follow each of these treatment modalities and excision is then advisable for the recurrent lesion.

**Angiolymphoid hyperplasia with eosinophilia** is an angiomatous disorder that predominantly affects young women aged between 25 and 45 years. The scalp, ears and face are the most common sites affected and the lesions consist of multiple grouped angiomatous dome-shaped vascular nodules that bleed easily. Lesions may be itchy or painful and some cases there is a blood eosinophilia. There is no tendency to spontaneous resolution and the nodules may persist unchanged for years.

Histology shows circumscribed tumours involving the dermis and/or the subcutis. The tumours consists of capillaries with swollen endothelial cells, solid proliferations of endothelial cells and an inflammatory infiltrate of lymphocytes, eosinophils and mast cells and. Cryotherapy and surgical excision have both been used effectively to treat this condition, but recurrences have been reported.

Both salmon patches and port wine stains have in the past been called **naevus flammeus**, however the two conditions are distinct, hence the term is confusing and best avoided. A **salmon patch** (or stork bite) is a pink macular area that occurs on the nape of the neck of between 20 to 50% of newborn babies and persists indefinitely throughout life. It is covered

by hair and as such is not a cosmetic problem and is usually no more than an incidental finding when the scalp is being examined. A salmon patch may also occur on the forehead or eyelids. Such lesions are much less common than nuchal ones and tend to fade during the first year of life and ultimately disappear .

A **port wine stain** is a developmental vascular malformation present at birth in 0.3% of children. It occurs most commonly on the face and neck, but a significant proportion extend onto the scalp. Single or multiple areas of macular erythema may be present and they are often sharply unilateral or segmental. Unlike salmon patches, with time these lesions persist, darken and develop a raised verrucous surface, sometimes studded with nodular angiomas or pyogenic granulomas.

Histologically there is a dilatation of thin walled vessels in the papillary dermis without an actual increase in the number of vessels or thickening of the vessel walls. In the **Sturge Weber syndrome** there is a port wine stain involving the ophthalmic branch of the trigeminal nerve (forehead and upper eyelid), the choroid of the eye and the leptomeninges. Intracranial angiomas predispose to epilepsy.

Various lasers have been developed to treat port wine stains on the face and body. Those on the scalp are generally covered by hair and require no treatment,. The treatment of choice for flat lesions on the face is the 585 nm tunable pulsed yellow dye laser (Candela). The response to treatment is unpredictable, however the majority will improve and many will disappear completely. The great benefit of these lasers is the lack of scarring. Other vascular lasers such as the copper vapour, Nd:YAG and argon have lower response rates and may produce permanent textural changes (scarring) and depigmentation.

**Strawberry naevi** are cavernous haemangiomas that are not usually present at birth. They occur in 5 to 10% of babies and first appear during the first few weeks of life. They begin as an erythematous macule that becomes papular and rapidly enlarges over a few months to become nodular. At this stage lesions are bright red, smooth nodules that vary in size from 1 to 25 cm. They frequently ulcerate, but profuse bleeding is rare. Occasionally there is a consumption coagulopathy due to the Kasabach-Merritt syndrome, which has a 40% mortality.

After 3 to 6 months the lesions stop growing and start to involute spontaneously. In 95% the involution is complete, leaving behind only an atrophic scar. The degree of scarring is variable, but is worst if there has been ulceration or infection of the naevus. The rate of involution is variable and 30% will be gone in 4 years, 50% in 5 years and 75% by 7 years. The later the resolution the less likely it is to be complete. When important structures are threatened, or ulceration is developing, intralesional triamcinolone or oral prednisolone (2-4 mg/kg) may be used to hasten resolution. They are most useful during the rapidly growing phase. The Candela laser is also useful at the early macular stage, and may abort the lesion.

About 60% of strawberry naevi occur on the head and neck. Twenty percent of children have multiple strawberry naevi. Lesions in the scalp usually resolve without permanent alopecia unless there has been previous ulceration. In a neonate cutaneous **extramedullary**

**haemopoisis** may mimic multiple strawberry naevi.

Multiple **blue rubber bleb naevi** may also occur on the scalp. They are present at birth and subsequently increase in size and number. Histologically they are capillary haemangiomas. They may also resemble multiple glomus tumours. Clinically they present as multiple blue, soft, compressible nodules up to 3cm in diameter. Lesions may also be present in the gastrointestinal tract and bleed into the bowel and cause anaemia.

The scalp may be involved in **hereditary haemorrhagic telangiectasia** (Osler's syndrome). In this autosomal dominant genodermatosis, cutaneous and mucosal telangiectasia are associated with intestinal telangiectasia. Intestinal bleeding produces a refractory iron deficiency anaemia that may respond to oestrogens if iron replacement fails to maintain the haemoglobin.