

## GIANT MULTIPLE PYOGENIC GRANULOMA

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**P**yo-genic granuloma was first described in 1897 by two French surgeons, Poncet and Dor<sup>1</sup> who named this lesion botryomycosis hominis<sup>2</sup>.

Pyogenic granuloma is misleading name because it is not a true granuloma. It is a lobular capillary hemangioma<sup>3</sup>, which is quite prone to bleeding. It is also not "pyogenic," as its origin is traumatic and not infectious<sup>4</sup>.

Pyogenic granuloma is a relatively common benign vascular lesion of the skin and mucosa. The worldwide frequency represents 0.5% of all skin nodules in children. The pregnancy type of pyogenic granuloma occurs in up to 5% of pregnancies<sup>5</sup>.

Females are affected more commonly than males, due to the pregnancy tumor phenomenon. There are no racial differences. The mean age of presentation is 6.7 years, but it shows decrease frequency with age<sup>5</sup>.

The exact mechanism for the development of pyogenic granuloma is unknown. Physical trauma (puncture wound from a pin), hormonal influences<sup>3</sup>, viral, arterio-venous malformations, the production of angiogenic growth factors, and cytogenetic abnormalities have all been postulated to play a role<sup>6</sup>.

It usually appears in children and young adults as a solitary glistening red papule or nodule that is prone to bleeding and ulceration. Typically it grows rapidly over a short period, most often on the head, neck, extremities<sup>5</sup> and upper

trunk. It may arise in pregnancy (or rarely with oral contraceptive usage), particularly on the gingiva or elsewhere in the oral mucosa. It has been reported throughout the gastrointestinal tract, the nasal mucosa, the larynx, and the conjunctiva and cornea.

Non-surgical treatment options, such as laser therapy or cryotherapy, are associated with recurrence rates of up to 50%; recurrence is common because of its cone like extension of blood vessels into the skin<sup>7</sup>. Therefore, complete excision is the first-choice therapy. But up to 15% may recur following excision<sup>8</sup>.

Surgery is indicated to alleviate any bleeding, discomfort, cosmetic distress, and diagnostic uncertainty.

This paper presents two cases of pyogenic granuloma. The first one is giant pyogenic granuloma of the right hand and the second one is multiple giant pyogenic granuloma of the face.

**Case one:** Middle aged man presented to OPD in May 2010, with huge granulation tissue mass over the flexor aspect of right wrist and dorsum of the right index which was dirty and bleeds easily during cleaning. The patient gave a history of previous superficial burn. On examination; there was 7x4 cm granulomatous mass over the flexor side of the right wrist with crusts over the dorsum of the hand in the area of healed burn. The patient was taken to theater, the whole lesions were shaved, and the

bleeding stopped, and then dressed with betadine pack. Dressing was changed every other day with application of local

antibiotic cream. The patient had a good healing with no scar left.

**Case two:** A thirty year old man referred from a peripheral hospital in March 2012 with large multiple granulomatous masses on his face and neck, developed gradually after a minor thermal trauma aggravated by exposure to sun. On examination, the masses were circular in shape and measured 1-2cm in diameter, covered with a dirty crust, and bleed easily when cleaned.

Lesion was spread over the forehead, left cheek and left side of the neck. The lesions were shaved under GA and the bleeding was cauterized by diathermy. Change of dressing was done every other day with application of local antibiotic cream. He had good improvement, and he was followed-up in the OPD.

## Discussion

Although the cause of pyogenic granuloma is not known, but in these two cases, thermal injury with bad management of the burn could be the possible factors in causation<sup>9,10</sup>. Most reported cases suggest that pyogenic granulomas grow to a maximum of 2 cm. Choudhary et al. and Tursten et al. have reported larger lesions<sup>11,12</sup>. In the first case the lesion was 7x4 cm in size, while in the second case it was multiple lesions of a size of 1-2 cm over the face and neck. Infection by *Bartonella* spp.

has been suggested as the cause of pyogenic granuloma<sup>13</sup>. Others have found no association<sup>14</sup>. In these two cases infection with *Bartonella* spp could be the possible cause in addition to burn.

Both cases were treated conservatively with systemic and local antibiotic cover and then surgical excision done. The response after surgery was dramatic. They were attending the OPD for six months with no recurrence.

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