

The effect of the object varies with its nature and shape. Perforation, abrasion, pressure necrosis and local vaginitis result in ulceration of the vaginal walls. This can involve neighboring structures to cause urinary and fecal fistulae.<sup>5</sup> Ascending infection may lead to salpingitis and peritonitis. Rarely, neglected pessaries can cause severe ulceration of posterior fornix and later vaginal carcinoma.<sup>3</sup> The predominant symptom is an offensive blood stained discharge, as was observed in our patient. The foreign body must be removed, which may be easy, although in young children a narrow illuminated endoscope may be needed. The vaginal wall heals by itself after removal, as was observed in our case.

The presence of vaginal foreign body may be an indication of sexual abuse. Though this is not always the case, the possibility should be kept in mind while examining any child with vulvovaginal symptoms.<sup>6</sup> In the present case, whether this was abuse by an adult or a childish prank by other children in the neighborhood or curiosity on the part of the child herself, is a question which still remains unanswered.

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## REFERENCES

1. Wilcox Rr, Wilcox JB. Venereological medicine. London: Grant McIntyre; 1982.
2. Adams PJ. Benign diseases of the female reproductive tract – symptoms and signs. In: Berek JS, editors. Novak's Gynecology. Philadelphia: Lippincott William Wilkins; 2002. p. 352-3.
3. Padubidri VG, Daftary SN. Shaw's Textbook of gynecology. New Delhi: BI-Churchill Livingstone; 2001.
4. Pokorny SF. Long term intra-vaginal presence of foreign body in children. A preliminary study. J Reproductive Med 1994;39: 931-5.
5. Bhatla N. Jeffcoat's Principles of Gynecology. New Delhi: Arnold; 2001.
6. Herman-Giddens ME. Vaginal foreign body and child sexual abuse. Arch Pediatr Adolesc Med 1994;148:195-200.

## Castellani's paint

Sir,

It was interesting to read the article Castellani's paint<sup>1</sup> (CP) which is still a very useful, but rarely used antifungal paint, especially for the intertriginous areas.

I would like to point out one serious side effect of CP which we have published in 1990<sup>2</sup> that has not been mentioned in the above article. A 35-year-old man developed severe methemoglobinemia within minutes of application of outdated CP. CP decomposes on storage and becomes a contact poison, which in turn induces even fatal methemoglobinemia. Hence the patient should be instructed to use only freshly prepared CP which can be kept for a maximum period of 2 weeks only.

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## REFERENCES

1. Shah MK. Castellani's paint. Indian J Dermatol Venereol Leprol 2003;69:357-8.
2. Sugathan P, Najeeba R, Neelakanta Sharma R. An unusual side effect of Castellani's paint. Indian J Dermatol Venereol Leprol 1990;56:317-8.

## Klippel Trenaunay Parkes-Weber Syndrome

Sir,

A 5-year-old girl was referred with the complaints of enlargement of the right upper limb and multiple bluish-red swellings since birth, and recurrent episodes of fever, pain and bleeding in the affected limbs for the last 4 years. There was no history of any systemic complaints. The antenatal history was not significant, and there was no family history of similar complaints.

Examination of the child revealed a conscious, slightly distressed child with moderate pallor and fever.

Cutaneous examination showed soft, well defined, warm, mildly tender swellings over the right elbow, having multiple discrete 0.3 cm x 0.5 cm to 0.5 cm x 0.7 cm sized erythematous to dark blue colored angiokeratomatous lesions (Figure 1). No bruit was heard on auscultation. This was associated with a diffuse soft tissue swelling of the upper arm, chest and upper back and increase of the girth of the limb on the right side of the body with multiple lymphangiomas. A port wine stain, 6 cm x 5 cm in size, was also observed, extending from the inner side of the right upper arm into the axilla and posteriorly to the upper scapular area. Systemic examination was normal.

Laboratory investigation revealed Hb 7.9 g% with a normal platelet count. An X-ray of the right arm, forearm and chest wall showed a soft tissue swelling over the right arm extending distally up to the elbow and proximally to the right chest wall, with the underlying bone (the humerus) thinned out, suggestive of atrophy. A Doppler study showed a multichanneled slow-flowing arteriovenous malformation with evidence of thrombosis with soft tissue thickening (Figure 2). Ultrasonography of the abdomen was normal.

The child was given analgesics and antibiotics for the

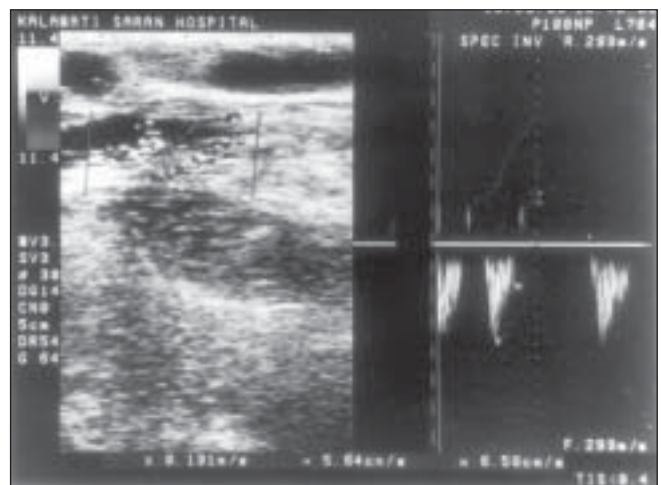


**Figure 1: Swelling over the right elbow with multiple angiokeratomatous lesions on it with an underlying port-wine stain with increased limb girth**

thrombophlebitis and was given aspirin. She was referred to the pediatric surgery department for the management of the limb enlargement and arteriovenous malformation.

In 1900, Klippel and Trenaunay described a rare congenital disorder having abnormalities in the mesodermal components, clinically characterized by (a) a capillary malformation, usually a port wine stain, over the affected extremity or at a site other than the hypertrophied limb (crossed dissociated form), (b) soft tissue or bony hypertrophy or both, (c) varicose veins or venous malformation, sometimes with persistent lateral embryonic veins.<sup>1</sup> Any two features are required for the diagnosis of Klippel Trenaunay syndrome (KTS).<sup>2</sup> Parkes-Weber described arteriovenous malformation, an infrequent finding in a “hemangiectactic hypertrophied lower limb”.<sup>3</sup> Intrauterine injury to the sympathetic ganglia causing dilatation of the arteriovenous anastomosis,<sup>4</sup> abnormalities in the deep veins obstructing the venous flow,<sup>5</sup> and mixed ectodermal and mesodermal dysplasias<sup>6</sup> have been suggested as some of the possible underlying mechanisms. There have also been case reports with a positive family history.<sup>7</sup>

Arteriovenous malformations are usually high flow malformations. They may be silent in the neonate or clinically may have a raised temperature, soft tissue enlargement or bruit on auscultation. Various reports



**Figure 2: Doppler ultrasound shows multiple serpiginous channels with evidence of pulsatile (biphasic flow) with a peak systolic velocity of -36m/sec**

on KTS have observed a vascular malformation of the slow flow type only and none has reported an arteriovenous malformation.<sup>8,9</sup> Severe arteriovenous malformations may give rise to congestive heart failure. Disseminated intravascular coagulation has been reported in a patient with Parkes-Weber syndrome after a lower leg fracture.<sup>10</sup> Arteriovenous malformations are progressive lesions and their evolution is helped by puberty, pregnancy, infections and trauma.

Vascular anomalies may be divided into two major categories: tumors (hemangiomas) and vascular malformations.<sup>4,6</sup> Vascular malformations are developmental anomalies that are further classified on the basis of the channel abnormality as arterial, venous, lymphatic, capillary, combined, arteriovenous and arteriovenous fistulas.

The vascular malformation in the Parkes-Weber syndrome is an arteriovenous malformation, which grows in proportion to the growth of the child and also in relation to the hemodynamic changes such as increased blood flow, causing vessel dilatation, obstruction and thrombosis.

Our patient had a large port wine stain over the upper limb with raised temperature but without any bruit on auscultation and clinically a diagnosis of KTS was considered. Subsequently, on Doppler evaluation a slow-flowing arteriovenous malformation was discovered.

The majority of patients with KTS require non-operative management. Epiphysiodesis is recommended only if the leg length discrepancy exceeds 2 cm in the growing child. Symptomatic varicose veins or localized arteriovenous malformation can be removed.<sup>9</sup> On the other hand, presence of arteriovenous malformation would require surgical intervention and correction with the help of endovascular surgery<sup>11</sup> as the hemodynamic alterations would give rise to high output cardiac failure, and the treatment is recommended at the time of diagnosis.

The lesions are detectable with the use of the continuous wave Doppler even before they are audible with a stethoscope. Good judgment before surgery and

**Table 1: A summary of features culminating in a diagnosis of Klippel-Trenaunay-Weber syndrome**

**Features in favor of Parkes-Weber syndrome**

1. Warmth and tenderness overlying the affected area.
2. Soft tissue swelling and increase in girth of the affected limb.
3. Arteriovenous malformation (AVM) detected in Doppler study.

**Features against Parkes-Weber syndrome**

1. Absence of any of AVM according to thrills or bruit (although they may be absent in stage Schobinger staging).
2. 'Slow' flow type has been detected in Doppler study while Parkes Weber Syndrome is categorized as a 'Fast' flow type Vascular Syndrome having capillary-arteriovenous malformation (CAVM) or capillary-arteriovenous fistula (CAVF).
3. Thinning of underlying bone (humerus) as a radiological finding.

**Features in favor of Klippel Trenaunay syndrome**

1. Presence of a port wine stain at the inner aspect of upper right arm extending to the axilla and posteriorly to upper scapular area.
2. Soft tissue swelling and increase in girth of the affected limb (common to PWS).
3. Thinning or hypertrophy of the humerus. Though bony hypertrophy is commonly associated feature of KTS, hypotrophy can rarely be seen also.
4. 'Slow' flow type of abnormality detected in Doppler study.

**Features against Klippel Trenaunay Syndrome**

1. KTS is Vascular Syndrome having either capillary-venous malformation (CVM) or capillary-lymphaticovenous malformation (CLVM). This is in contradistinction to what has been detected by Doppler (AVM).

precise diagnosis with the help of venography/MRI is required.<sup>11</sup> Our patient represents an interesting case of Klippel Trenaunay-Weber syndrome (Table 1). A distinction between the two may sometimes be difficult,<sup>12</sup> as highlighted in our case.

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**REFERENCE**

1. Grevelink SV, Mulliken JB. Vascular anomalies and tumors of skin and subcutaneous tissues. In: Freedberg IM, Eisen AZ, Wolff K, et al, editors. Fitzpatrick's Dermatology in general medicine. 6th ed. New York: McGraw-Hill; 2003. p. 1002-19.
2. Glovitzki P, Stanson AW, Stickler GB, Johnson CM. Klippel Trenaunay syndrome: the risks and benefits of vascular interventions. *Surgery* 1991;110:469-79.
3. Parkes-Weber F. Angioma formation in connection with hypertrophy of limbs and hemihypertrophy. *Br J Dermatol* 1907;19:231-5.
4. Bliznak J, Staple TW. Radiology of angiodysplasias of the limbs.

- Radiology 1974;110:35-44.
5. Sevelle M. Klippel and Trenaunay's syndrome: 768 operated cases. *Ann Surg* 1985;201:365-73.
  6. Baskerville PA, Ackroyd JS, Browse NL. The etiology of the Klippel Trenaunay syndrome. *Ann Surg* 1985;202: 624-7.
  7. Advoet GE, Jorens PG, Roelen LM. Genetic aspects of Klippel Trenaunay syndrome. *Br J Dermatol* 1992;126:603-7.
  8. Samuel M, Spitz L. Klippel Trenaunay syndrome: clinical features, complications and management in children. *Br J Surg* 1995;82:757-61.
  9. Jacob AG, Driscoll DJ, Skaughnessy WJ, Stanson AW. Klippel Trenaunay syndrome: spectrum and management. *Mayo Clin Proc* 1998;73:28-36.
  10. Yamamoto H, Muneta T, Asahina S, Furuya K, Suzuki K. Lower leg fracture with Parkes Weber syndrome complicated by disseminated intravascular coagulation. *J Orthop Trauma* 1995;9:449-52.
  11. Burrows PE, Fellows KE. Techniques for management of pediatric vascular anomalies In: Cope C, editors. *Current techniques in Interventional Radiology*. 2nd ed. Philadelphia: Current Science; 1995. p. 11-27.
  12. Frieden I, Enjolras O, Esterly N. Vascular Birthmarks and Other Abnormalities of Blood Vessels and Lymphatics. In: Schachner LA, Hansen RC, Happle R, et al, eds. *Pediatric Dermatology*. 3rd ed. Edinburgh: Mosby; 2003:833-62.