Penile Paraffinoma

Manjit Singh, DCP***, Vikramjit Singh, FRCS Urol**, Clarence Lei Chang Moh, FRCS Urol*

***Pathologist, Normah Medical Specialist Centre, Petra Jaya, 93050 Kuching, Sarawak.** Urologist, Sentosa Medical Centre, Kuala Lumpur.* Urologist, Normah Medical Specialist Centre, Petra Jaya, 93050 Kuching, Sarawak

SUMMARY
Penile augmentation with injection of paraffin is a common practice in South East Asia.

Penile paraffinoma occurring due to injection of liquid paraffin to enhance the size of the penis is an uncommon condition. Normally, this procedure is carried out by non-medical personnel, without the prior knowledge or consultation of any urologist. The occurrence of such a deforming procedure is not commonly known to the medical profession in Malaysia.

KEY WORDS:
Penis, Augmentation, Paraffinoma

INTRODUCTION
Robert Gersuny of Vienna first attempted injections of Vaseline or mineral oil into the scrotal sac in 1899. It was used as a substitute for the testicles in a patient following bilateral orchidectomy for tuberculous epididymitis. The success encouraged him in 1906 to use Vaseline in soft tissue defects and for cosmetic purposes especially for facial wrinkles. The after effects were discouraging.

Nowadays, paraffin is injected into the subcutaneous tissue of the penis for penile enhancement. Vaseline or exogenous oils remain stable and semi-solid at room temperature but liquefy on warming. Due to lack of any known enzyme to biologically digest or inactivate Vaseline or any exogenous oils, unintended drastic complications occur. This is a granulomatous reaction resulting in tumour-like formation, a lipogranuloma. The deforming reaction may occur early or late, especially after repeated injections, to get the desired effect for enhancement of the size of the penis. There is associated pain and inflammatory reaction. Some common complications include granulomatous reaction, infection and paraphimosis. Patients developed a disfigured penis with subcutaneous nodules which histologically revealed a foreign body granulomatous reaction.

CASE REPORT
A 32 year old man was referred to the hospital for pain and swelling of the penis. He gave a history of having injections into his penis to enhance the penile size. This was carried out by a non-medical person with liquid which appeared clear but with red sediments. However, 2 weeks later, his augmented penis became tender and the foreskin became non-retractable. The swelling also began to extend into the suprapubic region at the base of the penis which was also tender. He has no significant medical history and no history of allergy.

General physical examination was normal. The entire penile skin was indurated with ulcerations. There was no residual normal penile skin. The suprapubic mass at the base of the penis measured about 5 cm. However, both testes and scrotal skin were uninvolved.

Routine laboratory investigations were normal. He requested for excision of the injected penile skin and suprapubic mass. During the operation, a 16 Fr urethral catheter was inserted to protect the urethra. The entire indurated penile skin was excised together with the suprapubic mass which extended up to the suspensory ligament of the penis. However, small areas of foreign bodies attached to the corporal cavernosa at the corona were left in situ. There were pockets of pus noted in the tissue planes.

Histology revealed lipid filled vacuoles, marked chronic inflammation at areas forming follicles and associated multinucleated foreign-body giant cells and fibrosis. (Figure 1)

The entire scrotal skin was mobilized to cover the penis, as a scrotal flap. The urethral catheter and the drain were removed after 48 hours and he was discharged on the 3rd postoperative day. (Figure 2)

One dose of a triple antibiotic prophylaxis was given. He was given oral antibiotics postoperatively for 2 weeks.

At 3 months follow-up, the scrotal flap is viable and he has returned to a full and active sexual relationship with his spouse.

DISCUSSION
Liquid paraffin is an inert substance which when injected into tissues remains foreign and therefore excites a foreign body lipo-granulomatous reaction. The globules are not destroyed and appear as such. Surrounding multinucleated giant cells and in long standing cases there is marked fibrosis and a chronic inflammatory cell response. This then forms nodules and disfigurement of the penis, as in this case. Erections can be painful and disfigured.
CONCLUSION
Injection of liquid paraffin for penile augmentation can cause significant penile pain and disfigurement, fibrosis. This often requires extensive penile reconstructive surgery.

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REFERENCES

Fig. 1: Photomicrograph of penile mass. (a) Lipid filled vacuoles in the dermis; (b) Foreign body giant cell reaction with chronic inflammation around fat vacuoles. (H&E stain, x40)

Fig. 2: Pre-operative and post-operative photographs of penile shaft. (a) Penis with surgical markings. (b) In situ Foley’s catheter with scrotal flap, repair and circumcision.