An unusual complication related to acupuncture point catgut embedding treatment of obesity

Yung-Ting Chuang,1 Tzong-Shiun Li,2 Tze-Yi Lin,3 Chih-Jung Hsu1

ABSTRACT
Treatment of obesity by embedding catgut in acupuncture points has a satisfactory therapeutic effect in many patients. Even though results of its effectiveness are mixed, serious complications are rarely reported with this Chinese traditional therapy. Here an unusual complication of the treatment is reported: multiple tender subcutaneous nodules developed where the catgut was embedded over the lower abdomen and both medial thighs 1 month after treatment. Clinicians should be alert to this possible cause of a rather strange presenting physical sign.

INTRODUCTION
Acupuncture point catgut embedding has been used for thousands of years in traditional Chinese medicine for the treatment of several conditions. Although it is regarded as safe, we present an unusual complication that occurred in the treatment of obesity: multiple tender subcutaneous nodules developed over the lower abdomen and both medial thighs 1 month after embedding the catgut.

CASE HISTORY
A 27-year-old woman visited our outpatient department on 11 December 2010 with multiple itchy and tender skin lesions over the lower abdomen and both medial thighs, as shown in figure 1. She had had three courses of acupuncture point catgut embedding treatment with 7 days intervals between each course. A special needle was used to bury sterile catgut in the acupuncture points on both medial thighs and lower abdomen. An erythematous swelling appeared after the second course and became severe after the third course. She noticed that almost every tender lump developed on sites where catgut had previously been embedded. Dermatological examination disclosed multiple, tender, bean-sized erythematous nodules with central darkened points in a linear arrangement over both medial thighs and over the lower abdomen figures 1 and 2.

Her medical history did not include any systemic disease and she had not recently started any new drug. Our clinical impression was of foreign body granuloma, and in order to establish the diagnosis, and in particular to rule out iatrogenic infection, we arranged further investigation.

INVESTIGATIONS
Skin excisional biopsy and tissue cultures for bacteria, fungus and mycobacterium were performed. The histological report was of degenerative, individual or clustered, thread-like eosinophilic foreign material surrounded by localised mixed acute and chronic xanthogranulomatous inflammatory infiltrates with evident foreign body reaction figure 3. Special stains for infectious organisms, such as acid-fast stain, Gram stain, periodic acid–Schiff stain and Grocott’s methenamine silver stain were all negative. Tissue cultures for bacteria, fungus and mycobacterium were negative.

Further excisional biopsy was arranged for some large and painful lesions while intralesional steroid was injected into others. Tissue cultures for bacteria, fungus and mycobacterium were repeated, and the result was still negative.

OUTCOME
These tender and pruritic nodules on her lower abdomen and both medial thighs regressed spontaneously with postinflammatory hyperpigmentation. The appearance 6 months later is shown in figures 1 and 2.

DISCUSSION
Acupuncture point catgut embedding has been used for thousands of
years in traditional Chinese medicine for the treatment of perimenopausal syndrome (climacteric syndrome),\(^1\) chronic urticaria,\(^2\) depressive neurosis, refractory insomnia,\(^3\) Alzheimer’s disease, obesity, sciatica, ulcerative colitis, facial paralysis and trigeminal neuralgia.

Treatments of obesity with embedding catgut in acupuncture points has a satisfactory therapeutic effect in many patients. Even though results of its effectiveness are mixed, serious complications are rarely reported with this Chinese traditional therapy. We believe this is the first report of this unusual complication in which multiple tender subcutaneous nodules developed in the sites where catgut had been embedded 1 month previously.

Iatrogenic infection during the procedure must be the first consideration of doctors examining such cases. A differential diagnosis, including foreign body reaction, panniculitis, or atypical infection, might be considered. Infection is generally the most likely side effect in patients receiving an invasive procedure, and in the absence of systemic upset the possibility of a foreign body reaction cannot be ruled out.

When suture granuloma is suspected clinically, ultrasonography has been reported to be effective for diagnosis.\(^4\) Pathologically, the suture material is birefringent under polarised light.\(^5\) The correct diagnosis always depends on careful history taking and histopathological findings.

From our experience in this case, clinicians should remember the possibility of the presence of foreign body granuloma due to catgut embedding treatment in the differential diagnosis of skin conditions with this somewhat strange distribution.

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