

# The precarious use of charm needles *susuk* in treatment of low back pain by traditional medicine practitioners and its possible risk to patient safety

Sanjiv Rampal, MS (Ortho)<sup>1</sup>, Tan Eng Kee, MBBS<sup>1</sup>, Mohd Syazwan Zainal, MD<sup>1</sup>, Hardip Singh Gendeh, BMBS<sup>2</sup>, Laxmanshri Jaya Prahaspathiji, MMed (Rad)<sup>3</sup>, Shams Amir, MS(Ortho)<sup>4</sup>

<sup>1</sup>Department Of Orthopaedic and Traumatology, Faculty of Medicine and Health Sciences,Universiti Putra Malaysia, Serdang, Malaysia, <sup>2</sup>Department of Otorhinolaryngology ,Universiti Kebangsaan Malaysia Medical Center, Cheras, Kuala Lumpur, Malaysia, <sup>3</sup>Department of Radiology ,Hospital Serdang, Serdang, Selangor, Malaysia, <sup>4</sup>National Orthopaedic Centre of Excellence for Research and Learning (NOCERAL), Department of Orthopaedic Surgery, Faculty of Medicine,University of Malaya, Kuala Lumpur, Malaysia

### SUMMARY

A 68-year-old female presented with a 1-month history of lower back pain with right-sided radiculopathy and numbness. She was diagnosed with lumbar spondylosis and treated conservatively with analgesia and physiotherapy. Imaging showed multiple *susuk*, a metal alloy, in the lower back region and other regions of the body. The patient had undergone traditional medicine consultation 10 years earlier when the *susuk* was inserted in the lower back as talisman. The practice of the insertion of *susuk* is popular in rural East Malaysia and Indonesia. These foreign bodies act as possible causes of chronic inflammation and granuloma formation. In addition, the localised heighten peril upon imaging. This report suggests that the insertion of multiple *susuk* as talisman carries risk to safety of patients when imaging, and this practice complicates the management of musculoskeletal disorders.

### INTRODUCTION

The practice of insertion of charm needle, called *susuk* in Malay, is still practiced in South East Asia.<sup>1</sup> These needles are usually gold alloy and measuring between 0.5 to 1mm in diameter and approximate 1 to 1.5cm in length.<sup>1,2</sup> They are inserted subcutaneously and worn as a talisman to enhance the beauty of the wearers, improve strength, health, libido and for the treatment of aches and pains.<sup>1</sup> Common sites for insertion of *susuk* include the face, chest, breasts, arms and even the genitalia.<sup>2</sup> The wearers are usually secretive of having inserted these needles due to the belief that its power will be lost if revealed to others. We report here of a case of a patient seen at Universiti Putra Malaysia who had previously sought traditional medicine consultation and *susuk* insertion for his lumbar spondylosis.

### CASE REPORT

A 68-year-old diabetic hypertensive Malay female was admitted for sudden onset lumbar back pain that worsened on ambulation. The pain radiated to the right lower limb and was associated with numbness of the foot. She was ambulating unaided pre-morbid but had been using a wheelchair since the onset of her symptoms. Examination of

the right lower limb revealed weakness of the L3 to S1 myotomes and reduced sensation of the L2 and L3 dermatomes. A magnetic resonance imaging (MRI) of the lumbar spine was planned but cancelled due to the presence of radio-opaque foreign bodies in her lower back seen in plain radiographs. Further questioning of the patient revealed prior *susuk* insertion in multiple regions of her body which was confirmed by chest and skull radiographs. Patient claimed to have had *susuk* inserted when she had visited a traditional healer about 10 years ago who treated her with magic liquid potion and which had local anesthetic with *susuk*. General symptoms of the patient improved with analgesia, physiotherapy and was then discharged well. This case highlights the practice of insertion of *susuk* by traditional healers in South East Asia as treatment of back pain with little or no knowledge of its potential harm or risk of infection.

### DISCUSSION

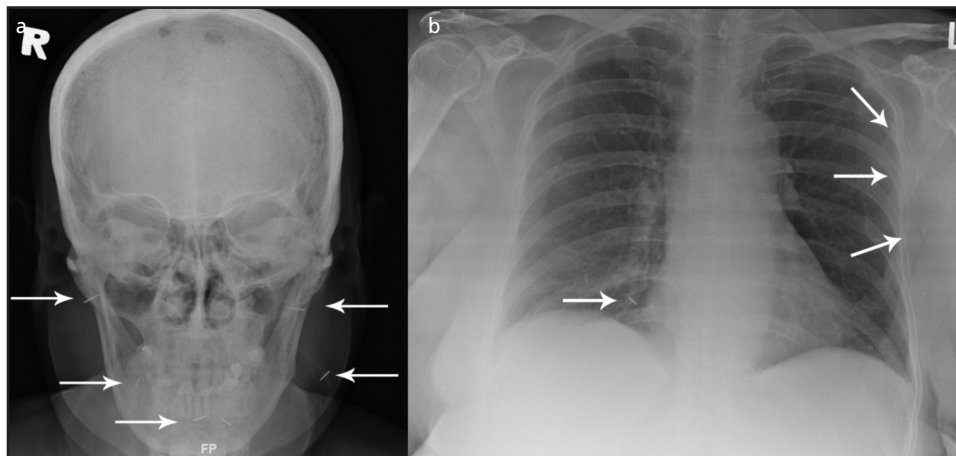
Withholding information from a clinician prior to investigations such as an MRI may endanger the patient and healthcare staff. The detection of *susuk* is usually incidental via radiograph<sup>3</sup> as patients are usually secretive about their insertion for fear of the talisman losing its powers. These needles are not clinically palpable, leaving behind no scars or marks to indicate their presence. Gold is the predominant metal used in *susuk* for its biocompatibility while copper is added to increase the hardness of the needle.<sup>2,4</sup> Gold carries no risk of heating or dislocation in an MRI and has not demonstrated any artefacts or distortions on an MRI, but being an alloy there is still a risk of injury if the *susuk* is heated or dislodged.<sup>2</sup> The presence of numerous needles in multiple locations may still raise concerns in higher magnetic field strengths, though this has not been studied.<sup>2</sup>

*Susuk* being an alloy foreign body may develop into a foreign body granuloma that can become painful. The needles may break due to corrosion or structural weakening<sup>3</sup> leading to pain or heavy metal toxicity; if involving numerous needles. Migration risk to vital organs or neurovascular structures must not be overlooked.<sup>2</sup>

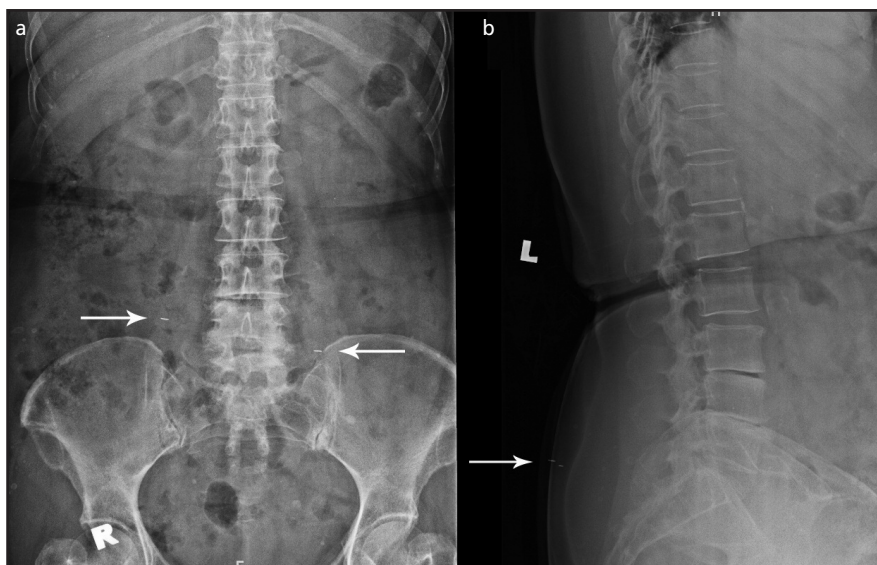
This article was accepted: 31 October 2019

Corresponding Author: Dr. Sanjiv Rampal

Email: rampalsurgery@gmail.com



**Fig. 1:** Plain radiographs of the skull and chest show fine linear opacities in keeping with charm needles in the soft tissues of (a) bilateral maxillary, mandibular and symphysis menti regions (b) right inferior and left anterolateral chest wall.



**Fig. 2:** Plain radiographs of the lumbosacral spine showing superficially located charm needles in the subcutaneous plane of the lower back in the lateral image (a) which are placed over bilateral paraspinous regions in the AP image(b).

Susuk can easily be mistaken for a foreign body obtained during trauma or a medically inserted dental implant or surgical clips.<sup>5</sup> Several possible differential diagnoses to charm needles must be considered and appropriately investigated<sup>6</sup> to prevent wrongful diagnosis leading to inappropriate management.<sup>3,4</sup> Removal of the susuk is challenging as patients usually refuse surgical removal, though surgical removal is typically uncomplicated, once they are localised.<sup>5</sup> Patients believe that the susuk may only be removed by the bomoh (traditional medicine man) who inserted them in the first place to prevent being cursed throughout.<sup>3</sup>

#### CONCLUSION

This report outlines the use of susuk as a mode of treating back pain by local alternative medicine practitioners. Although susuk practice is rare yet with globalisation and increases mobility of modern patients: clinicians should

always be aware of the presence of traditionally inserted transcutaneous needles susuk. These detections are usually incidental, non-contributory to diagnosis and do not require any active intervention. Precautions and patient safety are of utmost importance while attempting MRI and other imaging procedures in the presence of susuk in musculoskeletal pain. This report may assist in increasing the alertness of general medical fraternity regarding the traditional treatment method which may cause harm if undisclosed by the patient as susuk is quite a common practice in South East Asia.

#### ACKNOWLEDGMENT

We like to acknowledge our gratitude to the patient for giving consent to publish this article. We also like to extend our thanks to Head of Department of Orthopaedic Serdang Hospital, Director of Hospital Serdang and Dean Faculty of Medicine and Health Sciences UPM.

**REFERENCES**

1. Alhamad T. Susuk - Images in Pulmonary, Critical Care, Sleep Medicine and the Sciences. *Am J Resp Crit Care Med* 2011; 184(4): 484.
2. Balasundram S, Yee SC, Shanmugasuntharam P. Susuk: Charm needles in orofacial soft tissues. *Open Journal of Stomatology* 2013; 03(02): 155-62.
3. Devakar DD, Mavinapalla S, Kheraif AA, Ramakrishnaiah R, Abd Rahim M, Khan AA. Incidental radiographic finding of the concealed art of susuk. *Med Sci Law* 2015; 56(3): 230-2.
4. Pothiawala S. Incidental radiological finding of charm needles. *Hong Kong Journal of Emergency Medicine* 2012; 19(2): 141-3.
5. Tandjung YR , Hong CP, Nambiar P, Ibrahim N. Uncommon radiological findings: a case report. *International Dental Journal* 2007; 57(3): 173-6.
6. Sharif M, Horner K., Chadwick S, West C. Susuk charms? A case report. *Br Dent J* 2013; 215(1): 13-5.