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Magnet Implantation into a Dice Game Dealer's Digital Tips with Late Thumb Tip Infection: An Iatrogenic Criminal Operation

Arthi Kruavit, MD
Surawej Numhom, MD

Division of Plastic and Maxillofacial Surgery, Department of Surgery, Ramathibodi Hospital, Faculty of Medicine, Mahidol University, Bangkok 10400, Thailand.

Abstract: **We present the case of an unusual foreign body in the hand of a 39-year-old male dice game dealer who cheated his innocent customers by iatrogenic implantation of two magnets into the thumb tip and the middle fingertip of his left hand. The magnets were also implanted inside the dice which were commercially produced directly from the factory and could be legally bought from the market. This criminal act was performed by a medical doctor practicing his profession at his private clinic without conscience and dignity. Eight years later, the patient developed thumb tip infection. The wound healed by secondary intention within two weeks following adequate surgical treatment with proper antibiotics and removal of the magnet. The magnet in the middle fingertip was also removed upon the patient's request. This alarming fact is to receive more public awareness repeatedly and regularly. All medical students and physicians have to learn from somebody else's faults as far as medical ethics is concerned and strictly respect it for life. This criminal operation must not happen in medical practice.**

Introduction

Prior to 1900, implantation of foreign inorganic and organic materials in the human body for arthroplasty of upper and lower extremity reconstructions had been reported using wood, thin metal plates of gold, silver, zinc, tin, and magnesium as well as implantation of synthetics, such as celluloid, rubber sheets, collodion, autogenous fascia, or heterogenous tissues such as pig's bladder.[1] In hand surgery, great advancements have been made in the treatment of arthritic and destroyed joints and it has become an acceptable standard for arthroplasty using flexible medical grade silicone rubber implants for the benefit of mankind. Uncommon acute and subacute hand infection from fish bones and fin spines as foreign organic matters in the tissues had been reported.[2-4] A fragment of glass[5-7] and a piece of wood[8] have also been reported as sharp foreign bodies in the hand. The patients were often initially asymptomatic but subsequently experienced neurovascular complications and tendon rupture from the sharpness and migrations. We report an unusual inorganic foreign body of the hand with late infection in a male dice game dealer's thumb tip into where a magnet had been implanted by a medical doctor so that the patient could cheat his

Correspondence address : *Arthi Kruavit, MD, Division of Plastic and Maxillofacial Surgery, Department of Surgery, Ramathibodi Hospital, Faculty of Medicine, Mahidol University, Bangkok 10400, Thailand. E-mail: raakv@mahidol.ac.th*

customers while the dice used in the dice game were also implanted with magnets. This game is called in Thai "Hilo." "Hi" represents "high" and "lo" represents "low".

Case Report

A 39-year-old male dice game player, right handed, came to the hospital because of an ulcer at the pulp of left thumb tip for 7 days (Figure 1). The ulcer did not satisfactorily respond to surgical drainage, daily wound care and oral antibiotics therapy treated by himself 10 days earlier. He had no recent history of trauma to the left thumb. He had no diabetes mellitus but mild hypertension under medical control for a few years. From past medical history, he admitted that he brought two small magnets with him and went to see a medical doctor at a private clinic in Bangkok 8 years ago. Upon the patient's request, the doctor, practicing without conscience and dignity, iatrogenically implanted those two magnets into the pulp of his left hand under local anaesthesia, one in the thumb and another one in the middle finger.

X-ray of the left hand showed two retaining foreign bodies (magnets), one at the thumb tip and another one at the middle fingertip. The bones were intact (Figure 2). Laboratory work-up revealed no evidence of systemic infection or high blood sugar and negative anti HIV. Ulcer at the left thumb tip with retaining foreign body (a magnet) was diagnosed.

Adequate surgical treatment was performed under local anaesthesia and removal of the magnet, radical curettage of the infected granulating tissues and wound toilette were carried out. Preoperative and post-operative antibiotics (Cloxacillin 2 gm/day and Gentamicin 240 mg/day) were systematically administered throughout the first 8 days of hospitalization, followed by oral antibiotics (Olfloxacin 400 mg/day) for one week. Tissue culture and sensitivity test from the infected granulations obtained before the procedure revealed numerous Enterobacter species and numerous coagulase-negative Staphylococcus. Notably, no additional antibiotics that covered all organisms were administered as the initial regimen and the wound responded well to the treatment. One week later, the magnet in the left middle fingertip was also removed under local anaesthesia upon the patient's request (Figures 3 A, B). The ulcer at the pulp area of left thumb healed within 2 weeks by secondary intention after wet-to-dry dressings twice a day (Figure 4).

Figure 2 Radiograph of left hand showed two opaque foreign bodies (magnets), one at the thumb tip and another one at the middle fingertip.

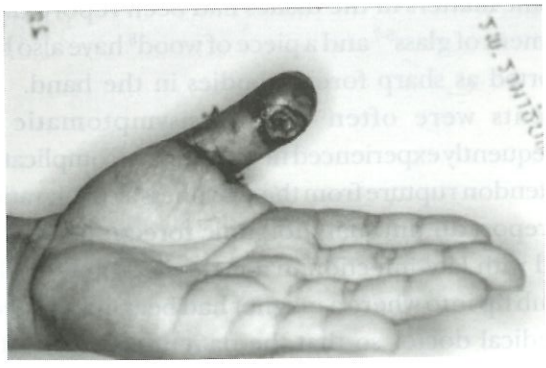
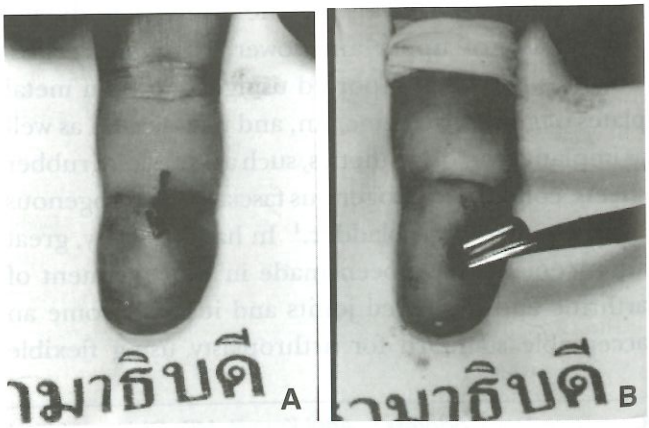


Figure 1 An ulcer at the pulp area of left thumb from eight-year implantation of a magnet into the dice game dealer's hand. A bulging from implantation of a small magnet into the pulp area of the middle finger can be observed.



Figures 3 A, B. Removal of a magnet from the pulp area of left middle finger under local anaesthesia and bloodless field using a finger tourniquet.

Figure 4 Two weeks after surgical treatment, the wound healed by secondary intention.

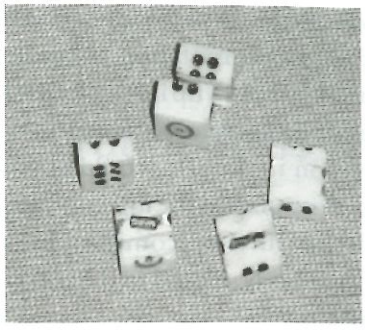


Figure 5 Cross-section of three dice bought legally from the market demonstrated implantation of magnets.

Discussion

To our knowledge, the first case report of subcutaneous implantation of magnets into the pulp of right middle and ring fingers of professional gamblers was in 1981[9]. The procedure was performed in Bangkok. Infection of the middle fingertip developed two months later and the implanted magnet was removed. This is the second ever reported case of a patient who presented with late thumb tip infection following implantation of two magnets into the tips of the left thumb and left middle finger. The implantation was performed 8 years previously by a medical doctor at an unknown private clinic as the patient refused to reveal more details. This was a criminal act as it could help the patient, as a dice game dealer, cheat his customers easily as there were also magnets inside the three dice used in the game (Figure 5). The magnetic dice of various sizes were specially produced by the factory and could be legally bought from the market. This would allow the dice game dealer to control the faces of the dice. Not many gamblers that play dice game know much about this way of cheating.

The magnet implants had apparently aided the patient, who was a dice game dealer, in cheating his customers. Firstly, it is inconceivable how many innocent people were taken advantage of during those 8 years. Secondly, and perhaps more importantly, this demonstrates a total lack of ethical commitment by the doctor responsible for the implantation. During consultation, a common sense can tell any doctor that this patient is a dice game dealer rather than a magician and it is also a crime as he is planning to cheat his customers while playing a dice game. From a fellow doctor's point of view, it is utterly inappropriate both on moral and ethical grounds to cooperate with the patient, since the essence of the medical profession starting since being a medical student is to do good rather than harm and to strictly respect the International Code of Medical Ethics, adopted by the third General Assembly of the World Medical Association in London, England, in October 1949. Any operative procedure must have one or more of the following aims: to prevent or cure disease(s), to relieve symptom(s), to prolong life, and to improve the quality of life. Clearly, implanting magnets into digital tips does not treat any medical conditions and this non-medical iatrogeny is to be blamed. Moreover, these two magnet implantation procedures were performed in Bangkok.

A foreign body of the hand is also particularly susceptible to infection because of its constant exposure to trauma from daily activities. It was, furthermore, evident in this case that such implants could cause a late digital tip infection. The eight-year postoperation was uneventful, so the cause of this thumb tip infection may be hypothesized that it was from direct neglected innocuous minor penetrating injury rather than from indirect systemic spreading. The injury had been neglected and undetected until the infection developed. Once an infection develops, adequate surgical treatment is indicated if improvement is not evident in 24 hours after medical treatment.[10,11] A little thing can become a big thing, and a minor infection from any trauma of the hand, with unique anatomy of fibrous septa and potential spaces, is no exception. It is even more serious in a compromised host. Many literatures[12-19] revealed that inadequately treated hand infections can result in prolonged hospitalization from

complications and even permanent disability of joint stiffness and digital amputation. This is a true story when the patient's thumb tip infection was not properly treated by himself. Had the patient not sought proper medical attention in time, he could possibly have lost his thumb tip. Fortunately, the infection was successfully treated with no further complications when the detected foreign body related to the infection was also completely removed.

This very problem should, in reality, be more widespread than we as doctors are aware of at the present. It has been known that dice of different sizes with magnet implants inside are sold openly in the market. It is therefore expected that there are still many dice game dealer cheating their innocent customers during the gambling. These dice allow the dice game dealer, such as this patient, to easily control the number on the surfaces every time they are rolled. The patient, moreover, revealed that this method of cheating is also common even in large casinos where dice game is offered. The sophisticated dice game tables can utilize electricity to manipulate the faces of the larger dice on the table. For example, all the three dice used in a dice game can be rolled to show number three, which is extremely rare, at the same time. This would particularly be done when the dealer sees that his customers have more chance of winning a big sum of money in the game.

The technique of cheating in the dice game is no doubt a criminal act and has long been known to some people. This alarming fact needs to receive more public awareness especially via the media repeatedly and regularly like commercial advertisement for younger generations. It would be of great help to those innocent dice game dealers so that they can avoid this outrageous act of swindle. Nevertheless, our patient so far accepted his misconduct and agreed not to continue as a dice game dealer ever again. He decided to have the other intact magnet in the left middle fingertip removed. The responsibility, thus, falls onto the hands of all medical personnel not to neglect or encourage this truly perturbing problem.

Implantation of magnets into one's digital tips is not only a criminal operation but also a sin. If a doctor lacks a common sense, it can only make him/her more dangerous for his/her patients. With a common sense, any doctor should realize that he/she is helping one to commit a specific crime. A criminal act on a dice game rarely happens and digital tip infection must not develop if the doctor strictly respects and adhere to the medical ethics and has a high standard of morals.

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