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Hip Joint Pain Caused by Electromagnetic Waves Following an Operation for a Complex Humerus Fracture

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Abstract

This case report illustrates hip joint pain caused by electromagnetic waves following an operation for a complex humerus fracture. The subject was a 22-year-old woman. The patient complained of pain in her left hip joint and discomfort, particularly while walking. The subject suffered a fracture in her left upper arm in a traffic accident approximately 3 months previously. She underwent an operation wherein seven titanium bolts were used to fix the humerus. The operation was deemed successful and the prognosis of the operation was also good; however, approximately 3 months after the operation, she developed pain and discomfort in her left hip joint, particularly while walking. Symptoms were improved by covering the surgical field with aluminum foil, blocking electromagnetic waves. Electromagnetic waves attracted by the titanium bolts may have induced pain.

Keywords

Electromagnetic Waves, Titanium Bolt, Electromagnetic Wave Hypersensitivity (EHS), IT (Information Technology) Society

1. Introduction

The use of electronic devices, including cell phones and personal computers, has considerably increased in recent years, particularly in developed countries. These devices have facilitated communications on a global scale [1] [2]. However, a number of studies have reported health problems associated with electromagnetic waves emitted by these devices. A long list of both general and severe symptoms, including headaches, fatigue, tinnitus, dizziness, memory loss, irregular heartbeat, and whole-body skin lesions, have been noted. These are reportedly

associated with a condition called electromagnetic hypersensitivity (EHS) [3]-[15]. Here, we report a case of hip-joint pain that appeared following an operation for a complex humerus fracture. When covering the surgical field with aluminum foil to screen from electromagnetic waves, the symptom improved. We speculate that this may have been associated with harmful electromagnetic waves that were attracted by the titanium bolts used in the operation.

2. Case Report

Subject and Method

The subject was a 22-year-old Japanese woman. She was in a traffic accident approximately 3 months previously. Her figure was the average of Japanese adult woman, and there was no historical record to be noted until this accident. The subject suffered a fracture in her left upper arm in the traffic accident (**Figure 1**). She underwent an operation wherein seven titanium bolts were used to fix the humerus. The operation was deemed successful (**Figure 2**). Her left arm was fixed with plaster for one and half month after the surgery. After removing plaster, she rehabilitated and the treatment was finished. The prognosis of the operation was also good. However, approximately 3 months after the operation, she developed pain and discomfort in her left hip joint, particularly while walking. The patient was assured by the supervising physician that her hip abnormality symptoms were not associated with her previous operation. She believed that the author's treatment might be effective for her symptoms; thus, she visited our dental clinic. The skin of her left arm showed surgical scarring (**Figure 3**).

The patient complained of severe pain and tension in her left hip joint when the leg was rotated outward (**Figure 4**). When the surgical field of the left

Figure 1. Preoperative X-ray image. An upper left arm complex fracture of the bone is shown (arrow).

Figure 2. Postoperative X-ray image. Seven titanium bolts implanted to fix the humerus are shown (arrow).

Figure 3. Surgical scarring on the skin of the left arm of the subject is shown (arrow).

Figure 4. Findings of left hip joint abduction. Hip joint movement was restricted, and the hip joint was painful. The distance between the left knee and the bed was approximately 15 cm.

Figure 5. The subject's left upper arm was covered with aluminum foil (arrow). The mobility of her left hip joint improved, and the pain disappeared. Her left knee also lowered closer to the bed.

humerus was covered with aluminum foil, the pain disappeared and outward rotation of her left hip joint improved (**Figure 5**). The tension also improved when the Straight Leg Raise (SLR) test was applied to her left leg. When the foil was removed, joint movement became restricted again and the pain recurred.

3. Result

The author hypothesized that the symptoms of pain were related to harmful electromagnetic waves attracted by the titanium bolts used in the operation. The patient was advised to avoid proximity to electronic devices as much as possible and to cover the left upper arm with aluminum foil when experiencing severe pain. The author also recommended that the bolts fixing the bone be removed if possible.

In order to watch the actual experiment described in this case please visit YouTube movie:

Hip joint pain caused by surgical screws implanted in the upper arm.
https://www.youtube.com/watch?v=dqZIizMDQ70 (last accessed 18 Dec 2017)

4. Discussion

Several recent reports have posited an association between the electromagnetic waves emitted by electronic devices, such as cell phones, and a range of health problems. In a study of association between brain tumors and the radio waves emitted by cell phones, the Interphone Study Group concluded that although cell phone use was not associated with an overall increase in the risk of glioma or meningioma, an increased risk of glioma was observed at the highest usage levels. However, biases and error precluded a causal interpretation of these data, and the probable effects of long-term heavy cell phone usage require further investigation [16]. Other published reports do not support any association

between cell phone use and tumor development in the brain or salivary gland, leukemia, or other cancers [17] [18] [19]. Moreover, previous studies have reported symptoms of discomfort that may have been related to harmful electromagnetic waves being attracted by the amalgam, metal-alloy inlays, and titanium implants used in dental procedures [20]-[25]. The subject in the present report believed that her left hip joint pain may be cured by dental treatment [26] [27]. Although the symptoms appeared to have a medical rather than dental origin, the case was sufficiently similar to those previously reported to warrant further investigation [20]-[25]. However, the supervising physician was unwilling to recognize an association between the hip pain and the presence of the surgical bolts and refused to perform surgery to remove them. The patient now covers the surgical field of her upper arm with aluminum foil when she experiences unbearable pain. In this case, it might be essential to reduce the influence of harmful electromagnetic waves to improve symptoms. In order to avoid harmfulness of electromagnetic waves, it is necessary to move away from equipments emitting harmful electromagnetic waves, not to use such equipment, to wear a substance that neutralizes harmful electromagnetic waves [20] [22], and to cover the area which attracts harmful electromagnetic waves with a material which screens from electromagnetic waves like this case, etc. We have reported cases that the symptoms might be caused by harmful electromagnetic waves which titanium dental implants might attract [20] [21] [22]. The titanium bolts implanted in this case and titanium dental implants are the same in material and similar in shape. Therefore, the bolts used in this case seem to have the property of attracting harmful electromagnetic waves like the titanium dental implant. This case, among many others, suggests a possible role of the materials used in medical and dental procedures, attracting electromagnetic waves. This report highlights the importance of collaboration between dental and medical practitioners. The influence of electromagnetic waves on the human body has not been elucidated yet in many cases. Even in this case, it is unknown why the left hip joint has failed and did not appear on the right side. More investigations are necessary to clarify underling mechanism with multidisciplinary cooperation.

5. Conclusion

Following an operation for a complex humerus fracture, a patient presented with hip joint pain and discomfort. The author hypothesized that these symptoms might be related to harmful electromagnetic waves attracted by the titanium bolts used for fixing her bone in a previous operation. Previous reports have noted abnormalities in the body caused by electromagnetic waves emitted by electronic devices, such as cell phones. Such abnormal physical symptoms induced by exposure to electromagnetic waves are recognized as EHS. All medical practitioners, including dentists, should take into account the harmful effects of electromagnetic waves that may be induced by materials used in surgical procedures. In conclusion, this report recommends collaboration between dentists and other

medical practitioners to address this issue.

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