

Limb amputation and re-amputation in association with chronic pain syndrome

G. A. HUNTER

Sunnybrook Medical Centre, Toronto

Abstract

A small group of patients is reported in whom amputation or re-amputation of the upper or lower limb has been performed at increasingly higher levels in an unsuccessful attempt to relieve the patients' unrecognized chronic pain syndrome. The possibility of self mutilation should also be considered.

The etiological factors and management of this uncommon but difficult problem are discussed.

It is hoped that members of an experienced amputee team will recognize this rare problem and help to avoid multiple surgical procedures, which are harmful to the patient and costly to society.

Introduction

Amputation of the upper or lower limb often leads to psychological problems; it is important to realize that psychological problems may lead to limb amputation or re-amputation with disappointing results for the patient and the surgeon.

The author has previously described *Mania operativa*, an uncommon, unrecognized cause of limb amputation (Hunter and Kennard, 1982). *Mania operativa* may be defined as an obsession with pain and disability and the seeking of relief from this pain by repeated surgical procedures. Further experience allows the classification of these patients into three groups; it should be realized that there are many inter-related adverse social and psychological factors in the presentation of this problem to the amputee team.

1. Amputation after minor soft tissue injury.
2. Amputation after minor fracture.
3. Amputation after multiple knee operations.

1. Amputation after minor soft tissue injury

Typical case report 1. A 28-year-old chronic alcoholic male sprained his right ankle. Over the next 15 years, 15 bone and soft tissue operations around the foot were carried out, culminating in a Syme amputation, later revised to a below-knee amputation. The patient still complains of chronic stump and phantom limb pain, and is requesting further revision surgery.

2. Amputation after minor fracture

James and Hunter (1983) reported 16 patients (17 amputations) with an os calcis fracture, who were subsequently treated by Syme amputation (7 limbs) or below-knee amputation (10 limbs). The majority of these patients had closed fractures and were managed by standard conservative methods; the commonest reason for amputation and re-amputation was severe chronic pain. Most patients continued to complain of pain following multiple surgical procedures, culminating in amputation, and had difficulties with prosthetic fitting and rehabilitation.

3. Amputation after multiple knee operations

Typical case report 2. A 43-year-old male twisted his right knee and was subsequently treated by medial meniscectomy. This initial operation was followed by lateral meniscectomy, patellectomy and a successful knee fusion.

Pain in the limb continued, and was treated unsuccessfully by neurectomy of the saphenous nerve, lumbar sympathectomy and eventually the patient persuaded his surgeon to perform an above-knee amputation, in the mistaken belief that this would relieve his pain. The patient continues to complain of stump pain and is a poor prosthetic user.

All correspondence to be addressed to Mr. G. A. Hunter, Aids for Living Centre, Sunnybrook Medical Centre, 2075 Bayview Avenue, Toronto, Ontario, Canada, M4N 3M5.

Re-amputation for chronic pain

Wood (1980) reported that revision of either upper or lower limb amputations for pain had a poor chance of success. In 95 patients, only 33 (35%) obtained relief of pain after one revision. Three or more revision procedures were required in 44 patients (46%) in an unsuccessful attempt to relieve pain following re-amputation. Many of these patients had required multiple revision procedures with progressive loss of limb length, but still had persistent stump and phantom limb pain.

Discussion

Many psychological terms have been used to classify similar patients.

Surgical addiction — Menninger, 1934.

Chronic artefactualist — Asher, 1958.

Munchausen syndrome — Asher, 1958.

Malingering — Walters, 1973.

Psychogenic regional pain — Walters, 1973.

S-H-A-F-T syndrome — Wallace and Fitzmorris, 1978.

Amputees are possibly more likely than the rest of the population to suffer from depression with resultant social and economic problems. All amputations may likewise be complicated by stump pain, phantom limb pain and reflex sympathetic dystrophy.

Is this problem restricted to patients who receive payments from insurance companies or Compensation Boards?

This would appear unlikely because a recent review of over 1000 patients from the same centre (Millstein et al, 1983) indicates that the majority of the clinic's amputees have returned to work and are wearing their prosthesis. Financial compensation to Board patients never equals the patient's possible income, and permanent disability payments are relatively small by today's standards.

There are three factors involved in the development of this unusual association of chronic pain with amputation surgery, the patient, the surgeon, and society.

The patient

Prior to the accident the patient may have personality problems arising from his social, cultural and ethnic background, and often holds a grudge against hospitals and doctors. The loss

of a limb causes an abnormal grief reaction, and severe chronic pain may indicate the patient's inability to accept his misfortune. Chronic invalidism then encourages attention at home, allows relief from a boring or hazardous job and allows the patients to involve themselves in possible pursuit of financial gain from litigation and compensation payments.

The surgeon

Orthopaedic surgeons are poorly trained in psychiatry and perform the highest percentage of unnecessary surgery (McCarthy and Widmer, 1974). Failure to achieve relief of symptoms produces irritation and even anger in the mind of the surgeon, leading to further futile surgical attempts to cut out the patient's pain. If one is to consider the patient may be claiming financial compensation, one must accept the fact that the surgeon may equally benefit from a surgical procedure in a "fee for service" system.

Society

There is no reliable way to measure the intensity of pain, and there is natural sympathy from all health care personnel for the amputee who continues to have chronic pain.

If a doctor deceives a patient or the public, he may finish up in the law courts; however, it is not a criminal offence for the patient to attempt to deceive the medical profession intentionally or otherwise.

Management

It was only in retrospect that the pattern of these patients' behaviour allowed a definitive diagnosis of chronic pain syndrome. If this problem had been recognized earlier, many useless operations could have been avoided. It is important to recognize that chronic pain may arise from limb amputation and lead to unsuccessful repeated re-amputation. If this problem is suspected the physician should obtain the patient's previous medical records, and obtain a consultation with a psychologist or psychiatrist.

A period of observation within a rehabilitation unit may confirm the diagnosis, and control of pain with non-addictive drugs and non-invasive techniques may avoid further destructive surgery. If self mutilation is suspected, there seems little to be gained by direct confrontation with the patient.

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